



August 9, 2002

Mr. Dion Novak
Superfund Division
United State Environmental Protection Agency
77 West Jackson Boulevard
Mail Code: SR-6J
Chicago, Illinois 60604

Re: Monthly Progress Report – July 2002
Eagle Zinc Site, Hillsboro, Illinois

Dear Mr. Novak:

This progress report has been prepared pursuant to the December 31, 2001 Administrative Order by Consent (AOC) for the Eagle Zinc Company site, located in Hillsboro, Illinois and includes activities conducted during July 2002.

I. Activities Conducted During Reporting Month

Activities conducted during the reporting period included:

- Received final approval of the RI/FS Work Plan in a letter from USEPA dated July 9, 2002.
- Submitted copies of the final RI/FS Work Plan to USEPA and IEPA on July 19, 2002.
- Prepared for and implemented field activities associated with Phase 1 of the RI, including sediment, residue pile and soil sampling, site surveying, and completion of the field survey associated with the ecological screening evaluation. The Phase 1 field sampling activities were completed between July 8, 2002 and July 20, 2002. All field work was completed in accordance with the provisions of the RI/FS Work Plan.

II. Difficulties Encountered During Reporting Month

No significant difficulties were encountered during implementation of the Phase 1 field activities or during other activities completed during the reporting month. Two adjustments to the field program were made based on field conditions:

- Two soil borings in Area 1 (A1-18 and A1-22) and one soil boring in Area 4 (A4-5) intersected the water table at depths shallower than the residue/soil interface. As such, soil samples were not collected from these borings. These

areas will be characterized further through the ground water investigations conducted during Phase 2 of the RI.

- A total of 15 residue piles or groups of piles were identified as requiring sampling. The difference in the number of samples (21 estimated in the Work Plan) resulted from:
 - In some areas, additional piles were grouped together due to their proximity, size, and visual appearance (piles identified as numbers NP-13 and NP-14 on Figure 1)
 - Two of the RR1 type piles and one of the RCO type piles identified in the RI/FS Work Plan based on previous site surveys are currently being processed on-site by screening for reuse/sale of a carbon-rich product. These piles are largely depleted and are expected to be fully processed within the next few weeks. The resulting by-product, rotary residue oversize (RRO) material, continues to be placed on two stockpiles in the northern part of the manufacturing plant (RRO-12 and NP-16). While Eagle Zinc Company continues to explore options for off-site reuse of this material, the RRO stockpiles were included in the Phase 1 residue sampling program.
 - Additional piles were added to the sampling program based on a thorough inspection of the site prior to the commencement of the Phase 1 sampling (pile numbers NP-15 and NP-16). Pile NP-16 has accumulated from current site activities explained above, but represents an overall net reduction of residue material on-site.

III. Changes in Key Project Personnel

No changes in key project personnel have occurred.

IV. Sampling and Testing Results

Sampling/testing results generated during the reporting month include photoionization detector (PID) organic vapor measurements from sediment and soil samples, as well as XRF analyzer field data for metals measured from soil samples. A summary of the soil, sediment and residue samples collected, including field screening results and other sampling details, is included in Tables 1, 2 and 3, respectively. Table 4 includes all XRF metals soil screening data. The Phase 1 soil, sediment and residue sampling locations are shown on Figures 1a-1g, 2 and 3, respectively.

V. Project Schedule

The current Project Schedule, including actual dates for completed tasks, is attached to this letter. The date of ENVIRON's receipt of USEPA's written approval of the RI/FS Work Plan (July 11, 2002) has been designated as the start date for the Phase 1 tasks. As such, the draft Phase 1 Technical Memorandum will be submitted to the Agency by October 9, 2002.

VI. Activities Planned for Next Reporting Month

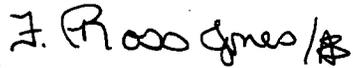
The following activities are planned for August 2002:

- Receipt of all Phase 1 laboratory data from the EnChem laboratory.
- Completion of data validation by Heartland ESI.
- Initiation of the draft Phase 1 RI Technical Memorandum.

If you have any questions concerning this progress report, please do not hesitate to contact us.

Sincerely,

ENVIRON International Corporation



F. Ross Jones, P.G.
Manager

FRJ:als

R:\Client Project Files\Eagle Zinc - Hillsboro\Monthly Progress Reports (RIFS)\June 2002.ltr.doc

Attachment

cc: Thomas Krueger, Esq. – USEPA Region 5
Rick Lanham – IEPA Bureau of Land
Joseph Freudenberg, Esq. – Dechert
Paul Harper – Eagle-Picher
Doug Ucci – QMG; representing Eagle-Picher
Gordon Kuntz – Sherwin-Williams
Roy Ball – ENVIRON

TABLES

Table 1: Soil Sampling Summary
(page 1 of 5)

Soil Area	Soil Boring	Residue Thickness (ft)	Soil Boring Depth (ft)	Max PID (ppm ^v)	Sum of XRF Metals Concentrations for PCOCs (ppm _v) ¹	Lab Sample ID	Sample Depth (ft)	Lab Analyses
A1	1	1	4	0	502			
A1	2	2	8	0	604.8			
A1	3	7	12	0	1040	S-A1-3-9	9	TAL Metals
A1	4	1.5	4	0	210.6			
A1	5	0.8	4	0	1739.2			
A1	6	8	12	0	9068.8	SA-A1-6-9	9	TAL Metals
A1	7	1.5	4	0	4748.8	S-A1-7-3	3	TAL Metals TCL VOCs/SVOCs PCBs
A1	8	1	4	0	1349.6			
A1	9	3	8	0	2379.2			
A1	10	2	4	0	979.2			
A1	11	1.5	4	0	1149.6			
A1	12	2	8	0	2388.8			
A1	13	0	4	0	1988.8			
A1	14	5	8	0	1520			
A1	15	9	12	0	2828.8			
A1	16	9	12	0	1449.6			
A1	17	5	8	0	3289.6			
A1	18	28	28	NA	NA			
A1	19	11.5	16	0	208.2			
A1	20	0	4	0	1480			
A1	21	20	24		2788.8			
A1	22	28	28	NA	NA			
A1	23	6	8	0	6508.8	S-A1-23-7	7	TAL Metals TCL VOCs/SVOCs PCBs
A1	24	10	12	0	4108.8	S-A1-24-10	10	TAL Metals
A1	25	0	4	0	831.2			

1. Based on the XRF readings in the uppermost foot on native soil.

Table 1: Soil Sampling Summary
(page 2 of 5)

Soil Area	Soil Boring	Residue Thickness (ft)	Soil Boring Depth (ft)	Max PID (ppm ^v)	Sum of XRF Metals Concentrations for PCOCs (ppm _v) ¹	Lab Sample ID	Sample Depth (ft)	Lab Analytes
A2	1	6	8	0	294.2			
A2	2	2	4	0	842.4			
A2	3	1.5	4	0	513.2			
A2	4	4.2	8	0	164.2			
A2	5	3.5	8	0	0			
A2	6	0	4	0	222.2			
A2	7	0.5	4	0	1814.7	S-A2-7-3	3	TAL Metals TCL VOCs/SVOCs PCBs
A2	8	5.5	8	0	155.9			
A2	9	0.2	4	0	409.2			
A2	10	0	4	0	1249.6			
A2	11	1	4	0	291.2			
A2	12	1	4	0	913.6			
A2	13	0.5	4	0	2200.4			
A2	14	4.5	8	0	812			
A2	15	2	4	0	1629.6	S-A2-15-3	3	TAL Metals TCL VOCs/SVOCs PCBs
A2	16	0.8	4	0	170.7			
A2	17	0	4	0	406			
A2	18	1	4	0	3308.8			
A2	19	0.5	4	0	1629.6	S-A2-19-6	6	TAL Metals TCL VOCs/SVOCs PCBs
A2	20	0.8	4	0	476			
A2	21	1.5	8	0	666			
A2	22	0	4	0	706			
A2	23	2	4	0	2939.2	S-A2-23-3	3	TAL Metals
A2	24	2	4	0	2432.1	S-A2-24-3	3	TAL Metals
A2	25	0	4	0	508			

1. Based on the XRF readings in the uppermost foot on native soil.

Table 1: Soil Sampling Summary
(page 3 of 5)

Soil Area	Soil Boring	Residue Thickness (ft)	Soil Boring Depth (ft)	Max PID (ppm ^v)	Sum of XRF Metals Concentrations for PCOCs (ppm _v) ¹	Lab Sample ID	Sample Depth (ft)	Lab Analytes
A3	1	1	4	0	417.6			
A3	2	0	4	0	319.4			
A3	3	3	8	0	843.2			
A3	4	1	4	0	3486			
A3	5	1.5	4	0	212.4			
A3	6	0	4	0	354.2			
A3	7	9	12	0	219.2			
A3	8	4	8	0	490.4			
A3	9	1	4	0	466.4			
A3	10	0	4	0	353.4			
A3	11	4	8	0	592			
A3	12	1.5	4	0	614			
A3	13	4.5	8	0	351.6			
A3	14	0	4	0	276.2			
A3	15	4	8	0	812.8			
A3	16	5	8	0	450			
A3	17	4	8	0	635.6			
A3	18	2	4	0	1009.6			
A3	19	4	8	0	1389.6	S-A3-19-5	5	TAL Metals
								TAL Metals
A3	20	0	4	0	1160	S-A3-20-2	2	TCL VOCs/SVOCs PCBs
A3	21	2	4	0	2419.2			
A3	22	5	8	0	3009.6	S-A3-22-6	6	TAL Metals
								TAL Metals
A3	23	2	4	0	1200	S-A3-23-2	2	TCL VOCs/SVOCs PCBs
A3	24	1	4	0	1160			
								TAL Metals
A3	25	1	4	0	1089.6	S-A3-25-2	2	TCL VOCs/SVOCs PCBs

1. Based on the XRF readings in the uppermost foot on native soil.

Table 1: Soil Sampling Summary
(page 4 of 5)

Soil Area	Soil Boring	Residue Thickness (ft)	Soil Boring Depth (ft)	Max PID (ppm ^v)	Sum of XRF Metals Concentrations for PCOCs (ppm _v) ¹	Lab Sample ID	Sample Depth (ft)	Lab Analytes
A4	1	3	8	0	1389.6	S-A4-1-6	2	TAL Metals
A4	2	1.5	4	0	295.2			
A4	3	1	4	0	2320	S-A4-3-2	2	TAL Metals
A4	4	3	8	0	131.6			
A4	5	4	4	NA	NA			
A4	6	0.8	4	0	383.6			
A4	7	2	4	0	225			
A4	8	4	8	0	0			
A4	9	0	4	0	356.8			
A4	10	6	8	0	401.6			
A4	11	0	4	0	515.2			
A4	12	0.3 (0.5-0.8)	4	0	504.4			
A4	13	1.5	54	0	598			
A4	14	.	4	0	758.8			
A4	15	2	4	0	1480	S-A4-15-2/ S-A4-15-2D	2	TAL Metals TCL VOCs/SVOCs PCBs
A4	16	2	4	0	894.4			
A4	17	3	8	0	1329.6	S-A4-17-2	2	TAL Metals
A4	18	1.2	4	0	233.4			
A4	19	2	4	0	1140			
A4	20	4	8	0	567.2			
A4	21	1.5	4	0	1209.6			
A4	22	0	4	0	1920	S-A4-22-2	2	TAL Metals TCL VOCs/SVOCs PCBs
A4	23	1	4	0	554.4			
A4	24	0 (trace)	4	0	586.8			
A4	25	1 (trace)	4	0	337.6			

1. Based on the XRF readings in the uppermost foot on native soil.

Table 1: Soil Sampling Summary
(page 5 of 5)

Soil Area	Soil Boring	Residue Thickness (ft)	Soil Boring Depth (ft)	Max PID (ppm ^v)	Sum of XRF Metals Concentrations for PCOCs (ppm _v) ¹	Lab Sample ID	Sample Depth (ft)	Lab Analyses
MA	1	2	4	0	476			
MA	2	2	4	0	327			
MA	3	5	8	0	0			
MA	4	4	8	0	261.6			
MA	5	2	4	0	398			
MA	6	2.5	8	0	1739.2	S-MA-6-4	4	TAL Metals
MA	7	0	4	0	193.5			
MA	8	1	4	0	295	S-MA-8-2	2	TAL Metals TCL VOCs/SVOCs PCBs
MA	9	0.5	4	0	1500	S-MA-9-2	2	TAL Metals
MA	10	0	4	0	272.6			
WA	1	0	4	0	155.3			
WA	2	0	4	0	0			
WA	3	0	4	0	233.2			
WA	4	0	4	0	440			
WA	5	0	4	0	122.5			
WA	6	0	4	0	175			
WA	7	0	4	0	1309.6			
WA	8	0	4	0	1582.6	S-WA-8-2	2	TAL Metals TCL VOCs/SVOCs PCBs
WA	9	0	8	0	1319.3	S-WA-9-2	2	TAL Metals
WA	10	1.5	4	0	1020			
NA	1	0	4	0	223.8			
NA	2	0	4	0	0			
NA	3	0	4	0	207			
NA	4	0	4	0	416.4			
NA	5	0	4	0	196.8			
NA	6	0	4	0	122.9			
NA	7	0	4	0	289			
NA	8	0	4	0	1868.8	S-NA-8-2	2	TAL Metals
NA	9	0	4	0	584.4	S-NA-9-2/ S-NA-9-2D	2	TAL Metals TCL VOCs/SVOCs PCBs
NA	10	0	4	0	636			

1. Based on the XRF readings in the uppermost foot on native soil.

Table 2: Sediment Sampling Summary

Drainageway	Onsite/ Offsite	Lab Sample number	PID (ppm _v)	Lab Analyses
Western	Offsite	SD-WD-1	0	TAL Metals
Western	Offsite	SD-WD-2	0	TAL Metals
Western	Offsite	SD-WD-3	0	TAL Metals
Western	Offsite	SD-WD-4	0	TAL Metals
Western	Offsite	SD-WD-5	0	TAL Metals
Western	Offsite	SD-WD-6	0	TAL Metals
Western	Offsite	SD-WD-7	0	TAL Metals VOCs/SVOCs PCBs TCL
Western	Offsite	SD-WD-8	0	TAL Metals
Western	Onsite	SD-WD-9/ SW-WD-9D	0	TAL Metals VOCs/SVOCs PCBs TCL
Western	Offsite	SD-WD-10	0	TAL Metals
Eastern	Offsite	SD-ED-11	0	TAL Metals
Eastern	Onsite	SD-ED-12*	0	TAL Metals VOCs/SVOCs PCBs TCL
Eastern	Offsite	SD-ED-13	0	TAL Metals VOCs/SVOCs PCBs TCL
Eastern	Offsite	SD-ED-14	0	TAL Metals
Eastern	Offsite	SD-ED-15	0	TAL Metals
Eastern	Offsite	SD-ED-16	0	TAL Metals

* Designated as MS/MSDs
 SW-WD-9D Collected as a duplicate sample

Table 3: Residue Sampling Summary

Lab Sample Number	Residue Pile ID from RI/FS Workplan	Residue Type	Lab Analyses
R-RR1-1	1	RR1	TCLP/SPLP
R-RR1-2	2	RR1	TCLP/SPLP
R-RR1-3	3	RR1	TCLP/SPLP
R-RR1-4/ R-RR1-4D	4	RR1	TCLP/SPLP
R-RCO-5	5	RCO	TCLP/SPLP
R-CPH-6	6	CPH	TCLP/SPLP
C-CPH-9	9	CPH	TCLP/SPLP
R-RCO-10	10	RCO	TCLP/SPLP
R-RR2-11*	11	RR2	TCLP/SPLP
R-RRO-12	12	RRO	TCLP/SPLP
R-NP-13	14,15,16	unk	TCLP/SPLP
R-NP-14	17,18,19,20	unk	TCLP/SPLP
R-NP-15	NI	unk	TCLP/SPLP
R-NP-16	NI	RRO	TCLP/SPLP
R-MP-21	21	MP	TCLP/SPLP

* Designated as MS/MSDs

R-RR1-4D Collected as a duplicate sample

NI = Not Identified in Workplan

RR1 = Rotary Residue Type 1

RR2 = Rotary Residue Type 2

RCO = Rotary Clean Out

RRO Rotary Residue Oversized

CPH = Carbon Plant Hutch

MP = Miscellaneous Piles

unk = Unknown pile type

Table 4: XRF Data for Area 2
(page10 of 22)

XLNo	Boring Location	Depth (ft)	Date	#31	#31 Error	#32	#32 Error
266	A2-1	7	07/18/02				
271	A2-1	8	07/18/02				
273	A2-2	3	07/18/02				
276	A2-2	4	07/18/02				
348	A2-3	2.5	07/18/02				
351	A2-3	4	07/18/02				
352	A2-4	5.5	07/18/02				
355	A2-4	8	07/18/02				
357	A2-5	7	07/18/02				
360	A2-5	8	07/18/02				
285	A2-6	3	07/18/02				
288	A2-6	4	07/18/02				
289	A2-7	3	07/18/02				
292	A2-7	4	07/18/02				
313	A2-8	7	07/18/02				
316	A2-8	8	07/18/02				
301	A2-9	2	07/18/02				
306	A2-9	4	07/18/02				
303	A2-9	2	07/18/02				
308	A2-9	4	07/18/02				
297	A2-10	3	07/18/02				
300	A2-10	4	07/18/02				
293	A2-11	3	07/18/02				
296	A2-11	4	07/18/02				
369	A2-12	2	07/18/02				
372	A2-12	4	07/18/02				
365	A2-13	2	07/18/02				
368	A2-13	4	07/18/02				
317	A2-14	6.5	07/18/02				
320	A2-14	8	07/18/02				
277	A2-15	3	07/18/02				
280	A2-15	4	07/18/02				
309	A2-16	3	07/18/02				
312	A2-16	4	07/18/02				
361	A2-17	2	07/18/02				
364	A2-17	4	07/18/02				
321	A2-18	6	07/18/02				
324	A2-18	7	07/18/02				
327	A2-19	2	07/18/02				
328	A2-19	4	07/18/02				
373	A2-20	2	07/18/02				
376	A2-20	4	07/18/02				
281	A2-21	3	07/18/02				
284	A2-21	4	07/18/02				
339	A2-22	2	07/18/02				
343	A2-22	4	07/18/02				
335	A2-23	3	07/18/02				
336	A2-23	4	07/18/02				
331	A2-24	3	07/18/02				
332	A2-24	4	07/18/02				
344	A2-25	2	07/18/02				
347	A2-25	4	07/18/02				

Table 4: XRF Data for Area 1
(page13 of 22)

XLNo	Boring Location	Depth (ft)	Date	Cs	Cs Error	Te	Te Error	Sb	Sb Error	Sn	Sn Error	Cd	Cd Error	Ag	Ag Error	Pd	Pd Error
112	A1-21	22.5	07/16/02	32.25	<LOD	165	<LOD	32.25	<LOD	750	<LOD	12.3	<LOD	285	<LOD	150	
54	A1-1	2	07/16/02	165	<LOD	48.3	<LOD	56.85	<LOD	780	<LOD	225	<LOD	300	<LOD	134.1	
57	A1-1	4	07/16/02	225	<LOD	180	<LOD	36.75	<LOD	675	<LOD	27.15	<LOD	210	<LOD	74.4	
53	A1-2	4	07/16/02	165	<LOD	117.75	<LOD	40.2	<LOD	615	<LOD	102.45	<LOD	225	<LOD	66.45	
50	A1-2	6	07/16/02	21	<LOD	21.3	<LOD	40.05	<LOD	750	<LOD	148.2	<LOD	360	<LOD	10.65	
44	A1-3	7	07/15/02	180	<LOD	50.85	<LOD	41.25	<LOD	870	<LOD	36.75	<LOD	330	<LOD	29.7	
47	A1-3	9	07/15/02	165	<LOD	210	<LOD	150	<LOD	720	<LOD	30.6	<LOD	300	<LOD	56.25	
62	A1-4	2	07/16/02	195	<LOD	20.55	<LOD	26.85	<LOD	615	<LOD	8.7	<LOD	270	<LOD	90.6	
65	A1-4	4	07/16/02	33.15	<LOD	150	<LOD	35.25	<LOD	600	<LOD	91.65	<LOD	180	<LOD	60.75	
58	A1-5	2	07/16/02	180	<LOD	69	<LOD	180	<LOD	840	<LOD	150	<LOD	285	<LOD	104.1	
61	A1-5	4	07/16/02	46.35	<LOD	165	<LOD	180	<LOD	645	<LOD	143.25	<LOD	255	<LOD	93.9	
38	A1-6	9	07/15/02	225	<LOD	61.2	<LOD	225	<LOD	870	<LOD	225	<LOD	300	<LOD	35.85	
41	A1-6	11	07/15/02	24.15	<LOD	141.45	<LOD	59.1	<LOD	585	<LOD	6.15	<LOD	195	<LOD	5.4	
11	A1-7	3	07/15/02			NA		NA		NA		NA		NA		NA	
16	A1-7	4	07/15/02	1484.4	<LOD	97.95	<LOD	94.35	<LOD	2700	<LOD	30.9	<LOD	330	<LOD	7.65	
91	A1-8	2	07/16/02	50.25	<LOD	285	<LOD	47.25	<LOD	1050	<LOD	55.2	<LOD	240	<LOD	6.9	
95	A1-8	3	07/16/02	140.85	<LOD	225	<LOD	34.2	<LOD	705	<LOD	8.1	<LOD	240	<LOD	6.6	
96	A1-8	4	07/16/02	285	<LOD	195	<LOD	285	<LOD	750	<LOD	10.5	<LOD	180	<LOD	103.65	
123	A1-9	3	07/16/02	270	<LOD	225	<LOD	42.75	<LOD	765	<LOD	33.6	<LOD	390	<LOD	111.9	
124	A1-9	5	07/16/02	42.15	<LOD	180	<LOD	74.1	<LOD	735	<LOD	330	<LOD	165	<LOD	29.4	
74	A1-10	3	07/16/02	133.8	<LOD	90.3	<LOD	128.25	<LOD	645	<LOD	8.55	<LOD	195	<LOD	68.7	
76	A1-10	4	07/16/02	138.45	<LOD	20.1	<LOD	34.5	<LOD	705	<LOD	121.35	<LOD	195	<LOD	75	
79	A1-11	2	07/16/02	110.1	<LOD	108	<LOD	111.6	<LOD	525	<LOD	91.05	<LOD	165	<LOD	60.3	
80	A1-11	4	07/16/02	142.95	<LOD	40.95	<LOD	107.7	<LOD	600	<LOD	38.7	<LOD	210	<LOD	110.4	
30	A1-12	4	07/15/02	195	<LOD	18.3	<LOD	101.55	<LOD	555	<LOD	7.8	<LOD	255	<LOD	69.15	
31	A1-12	6	07/15/02	137.85	<LOD	19.95	<LOD	27.15	<LOD	630	<LOD	8.25	<LOD	195	<LOD	74.7	
70	A1-13	2	07/16/02	210	<LOD	165	<LOD	68.7	<LOD	795	<LOD	240	<LOD	195	<LOD	52.8	
73	A1-13	4	07/16/02	35.55	<LOD	165	<LOD	125.7	<LOD	555	<LOD	100.95	<LOD	210	<LOD	6.3	
83	A1-14	6	07/16/02	180	<LOD	180	<LOD	180	<LOD	780	<LOD	88.35	<LOD	315	<LOD	39.45	
84	A1-14	8	07/16/02	27.15	<LOD	17.7	<LOD	30.9	<LOD	615	<LOD	100.95	<LOD	210	<LOD	6.3	
87	A1-15	11	07/16/02	165	<LOD	22.05	<LOD	165	<LOD	735	<LOD	134.7	<LOD	195	<LOD	6.45	
88	A1-15	12	07/16/02	32.4	<LOD	20.4	<LOD	165	<LOD	675	<LOD	135.9	<LOD	225	<LOD	7.2	
26	A1-16	9	07/15/02	112.5	<LOD	108.3	<LOD	165	<LOD	525	<LOD	5.7	<LOD	138.15	<LOD	3.6	
28	A1-16	11	07/15/02	285	<LOD	56.1	<LOD	285	<LOD	795	<LOD	330	<LOD	270	<LOD	33.3	
20	A1-17	5	07/15/02	210	<LOD	195	<LOD	38.4	<LOD	660	<LOD	118.65	<LOD	270	<LOD	7.95	
22	A1-17	8	07/15/02	210	<LOD	195	<LOD	165	<LOD	690	<LOD	180	<LOD	285	<LOD	10.2	
103	A1-19	13	07/16/02	165	<LOD	117.75	<LOD	32.25	<LOD	600	<LOD	99.6	<LOD	165	<LOD	5.1	
104	A1-19	15	07/16/02	56.7	<LOD	131.85	<LOD	131.1	<LOD	795	<LOD	77.7	<LOD	315	<LOD	27.9	
66	A1-20	2	07/16/02	180	<LOD	139.95	<LOD	149.4	<LOD	600	<LOD	210	<LOD	225	<LOD	8.25	
69	A1-20	4	07/16/02	37.5	<LOD	165	<LOD	37.65	<LOD	675	<LOD	32.85	<LOD	255	<LOD	26.7	
108	A1-21	21	07/16/02	29.1	<LOD	19.5	<LOD	150	<LOD	705	<LOD	8.4	<LOD	255	<LOD	7.05	
111	A1-21	22.5	07/16/02	20.85	<LOD	20.4	<LOD	29.85	<LOD	690	<LOD	7.65	<LOD	225	<LOD	6.15	
116	A1-23	7	07/16/02	225	<LOD	74.4	<LOD	225	<LOD	795	<LOD	330	<LOD	255	<LOD	127.5	
120	A1-23	8	07/16/02	147	<LOD	240	<LOD	40.35	<LOD	720	<LOD	119.85	<LOD	345	<LOD	78.75	
99	A1-24	10	07/16/02	33.6	<LOD	20.4	<LOD	165	<LOD	690	<LOD	26.4	<LOD	255	<LOD	6.9	
100	A1-24	12	07/16/02	195	<LOD	137.85	<LOD	195	<LOD	765	<LOD	28.5	<LOD	315	<LOD	23.4	
127	A1-25	2	07/16/02	300	<LOD	150	<LOD	165	<LOD	705	<LOD	129	<LOD	315	<LOD	9.3	
129	A1-25	4	07/16/02	48.75	<LOD	24.75	<LOD	225	<LOD	930	<LOD	10.95	<LOD	255	<LOD	7.05	

Table 4: XRF Data for the Western Area
(page14 of 22)

XLNo	Boring Location	Depth (ft)	Date	Mo	Mo Error	Zr	Zr Error	Sr	Sr Error	Rb	Rb Error	Pb	Pb Error	Se	Se Error	As	As Error	Hg	Hg Error	Zn	Zn Error	Cu
260	WA-8	2	07/17/02	<LOD	47.4	221.4	37.3	<LOD	27.9	96.6	49.5	<LOD	52.35	<LOD	22.5	<LOD	42.6	<LOD	28.05	1500	180	<LOD
263	WA-8	4	07/17/02	<LOD	39.45	201.1	34.8	63.4	23.5	100.5	49.1	183.3	57.9	<LOD	21	<LOD	65.1	<LOD	33.3	2840	240	<LOD
250	WA-9	2	07/17/02	<LOD	54	250.2	44.8	44.2	25.1	122.2	61.3	<LOD	55.8	<LOD	17.7	<LOD	46.2	<LOD	33.15	1220	180	<LOD
213	WA-1	2	07/17/02	<LOD	50.1	186.5	38.4	<LOD	34.2	133.3	62.1	<LOD	49.35	<LOD	23.4	<LOD	37.5	<LOD	29.1	155.3	86.7	<LOD
215	WA-1	4	07/17/02	<LOD	42.9	220.8	38.8	52	23.8	138.6	59.2	72.1	42.7	<LOD	18.9	<LOD	46.35	<LOD	28.65	<LOD	104.1	<LOD
217	WA-2	2	07/17/02	<LOD	48.3	214	40.8	88.6	29.4	173.7	69	<LOD	68.25	<LOD	24	<LOD	45.15	<LOD	23.1	<LOD	122.85	<LOD
220	WA-2	4	07/17/02	<LOD	40.35	232.2	36.5	80.1	24.7	105.5	49.4	<LOD	43.05	<LOD	16.65	<LOD	38.4	<LOD	29.55	<LOD	85.05	<LOD
221	WA-3	2	07/17/02	<LOD	53.4	250.8	44.9	39	24.6	143.4	65.7	<LOD	61.65	<LOD	25.2	<LOD	46.8	<LOD	33	233.2	98.8	<LOD
224	WA-3	4	07/17/02	<LOD	44.1	232.2	37.3	64.4	23.6	70.9	43.7	<LOD	47.55	<LOD	20.55	<LOD	36.3	<LOD	22.05	<LOD	96.15	<LOD
225	WA-4	2	07/17/02	<LOD	41.1	150.1	31.6	41.2	21.5	119.6	53.3	<LOD	37.2	<LOD	19.65	<LOD	30.45	<LOD	21	440	100	<LOD
228	WA-4	4	07/17/02	<LOD	43.35	193.3	37.3	91.8	28.3	148.6	61.8	<LOD	51.6	<LOD	19.5	<LOD	41.4	<LOD	25.5	<LOD	91.95	<LOD
229	WA-5	2	07/17/02	49	31.6	181.5	34.6	83.1	26.2	134.3	56.7	<LOD	45.75	<LOD	15.45	<LOD	32.4	<LOD	30	122.5	72.1	<LOD
232	WA-5	4	07/17/02	<LOD	45.15	142.2	32.9	37.2	22.6	143.9	61.4	<LOD	45.45	<LOD	14.7	<LOD	37.65	<LOD	26.85	215.8	92.1	<LOD
233	WA-6	2	07/17/02	<LOD	43.35	217.4	39	37.1	22.4	174.9	65.8	<LOD	46.5	<LOD	23.1	<LOD	37.8	<LOD	26.25	175	83.8	<LOD
236	WA-6	4	07/17/02	<LOD	40.5	212.4	37.6	33.7	21.5	158	61.6	<LOD	38.4	<LOD	19.05	<LOD	29.25	<LOD	29.25	<LOD	105.15	<LOD
237	WA-7	2	07/17/02	<LOD	56.55	238.4	46.6	46	27	<LOD	80.85	<LOD	47.7	<LOD	28.65	<LOD	43.05	<LOD	38.55	1309.6	200	<LOD
240	WA-7	4	07/17/02	<LOD	40.5	184.5	36	62.3	24.9	120.9	56.1	<LOD	37.95	<LOD	22.05	<LOD	30.9	<LOD	26.85	<LOD	106.05	<LOD
257	WA-8	2	07/17/02	<LOD	42.3	213.8	37.3	40.1	21.9	132.1	56.7	73	43.8	<LOD	25.35	<LOD	44.25	<LOD	28.2	1509.6	180	<LOD
261	WA-8	4	07/17/02	<LOD	40.05	239.8	35.6	55.9	21.5	94.6	45.2	175	53.6	<LOD	19.2	<LOD	59.1	<LOD	29.55	2748.8	220	<LOD
247	WA-9	2	07/17/02	<LOD	47.55	265.8	41.2	37.4	21.7	91.3	49.2	79.3	44	<LOD	22.65	<LOD	48.9	<LOD	30.75	1240	160	<LOD
251	WA-9	4	07/17/02	<LOD	36.75	209	32.9	48.8	20.4	84	42.4	233.2	59.4	<LOD	16.8	<LOD	64.35	<LOD	25.5	1329.6	150	<LOD
256	WA-9	8	07/17/02	<LOD	44.7	163.3	34.8	43.8	23.4	144.9	61.7	<LOD	56.4	<LOD	19.05	<LOD	40.5	<LOD	32.55	698.4	130	<LOD
243	WA-10	2	07/17/02	<LOD	42.75	152.2	32.2	<LOD	28.35	135.2	56.9	<LOD	36	<LOD	23.1	<LOD	35.25	<LOD	25.05	1020	150	<LOD
246	WA-10	4	07/17/02	<LOD	42.15	144.6	31.6	<LOD	29.85	93.4	49.4	<LOD	51.45	<LOD	21.45	<LOD	34.2	<LOD	24.15	<LOD	94.2	<LOD

Table 4: XRF Data for the Western Area
(page15 of 22)

XLNo	Boring Location	Depth (ft)	Date	Cu	Cu Error	Ni	Ni Error	Co	Co Error	Fe	Fe Error	Mn	Mn Error	Cr	Cr Error	Eu	Eu Error	La	La Error	Ba	Ba Error	Cs
260	WA-8	2	07/17/02	225	<LOD	285	984.8	460	27776	1800	5289.6	949.6	<LOD	1005	<LOD	1005	<LOD	210	<LOD	480	<LOD	
263	WA-8	4	07/17/02	255	367.4	180	<LOD	300	6288	620	<LOD	525	<LOD	570	<LOD	885	<LOD	93.45	<LOD	330	<LOD	
250	WA-9	2	07/17/02	300	2179.2	340	<LOD	405	6278.4	740	<LOD	720	<LOD	780	<LOD	900	<LOD	18.45	<LOD	510	<LOD	
213	WA-1	2	07/17/02	195	<LOD	315	<LOD	555	17792	1400	<LOD	885	<LOD	795	<LOD	435	<LOD	255	<LOD	450	<LOD	
215	WA-1	4	07/17/02	150	<LOD	255	<LOD	555	17894.4	1300	<LOD	900	<LOD	750	<LOD	645	<LOD	255	<LOD	495	<LOD	
217	WA-2	2	07/17/02	195	<LOD	315	<LOD	525	15296	1200	<LOD	840	<LOD	750	<LOD	1065	<LOD	41.4	<LOD	525	<LOD	
220	WA-2	4	07/17/02	127.2	<LOD	195	532.4	280	10598.4	840	<LOD	645	<LOD	570	<LOD	675	<LOD	14.25	<LOD	360	<LOD	
221	WA-3	2	07/17/02	210	365.2	240	<LOD	615	21094.4	1600	<LOD	1005	<LOD	855	<LOD	585	<LOD	240	<LOD	585	<LOD	
224	WA-3	4	07/17/02	165	<LOD	270	<LOD	435	11699.2	920	1280	530	<LOD	750	<LOD	840	<LOD	16.95	<LOD	510	<LOD	
225	WA-4	2	07/17/02	195	416.8	200	<LOD	495	17600	1200	<LOD	750	<LOD	720	<LOD	1244.4	<LOD	330	<LOD	555	<LOD	
228	WA-4	4	07/17/02	165	<LOD	285	<LOD	480	15590.4	1200	<LOD	810	<LOD	855	<LOD	1350	<LOD	22.8	<LOD	615	<LOD	
229	WA-5	2	07/17/02	165	<LOD	270	<LOD	405	10297.6	869.6	<LOD	630	<LOD	600	<LOD	945	<LOD	19.95	<LOD	645	<LOD	
232	WA-5	4	07/17/02	210	773.2	240	<LOD	555	18688	1400	<LOD	870	<LOD	720	<LOD	885	<LOD	17.7	<LOD	435	<LOD	
233	WA-6	2	07/17/02	180	<LOD	300	<LOD	450	11296	969.6	<LOD	705	<LOD	750	<LOD	1065	<LOD	345	<LOD	540	<LOD	
236	WA-6	4	07/17/02	180	<LOD	315	<LOD	465	12000	989.6	<LOD	735	<LOD	765	<LOD	870	<LOD	180	<LOD	165	<LOD	
237	WA-7	2	07/17/02	285	<LOD	375	<LOD	525	9888	1000	<LOD	780	<LOD	780	<LOD	540	<LOD	147.6	<LOD	435	<LOD	
240	WA-7	4	07/17/02	165	<LOD	255	<LOD	465	11795.2	989.6	<LOD	780	<LOD	690	<LOD	660	<LOD	132.3	<LOD	345	<LOD	
257	WA-8	2	07/17/02	225	452	220	<LOD	615	25894.4	1699.2	<LOD	1020	<LOD	885	<LOD	795	<LOD	22.05	<LOD	330	<LOD	
261	WA-8	4	07/17/02	195	<LOD	195	<LOD	300	6108.8	580	<LOD	465	<LOD	480	<LOD	495	<LOD	15.3	<LOD	360	<LOD	
247	WA-9	2	07/17/02	210	<LOD	270	<LOD	375	7475.2	730	<LOD	570	<LOD	570	<LOD	1005	<LOD	17.25	<LOD	435	<LOD	
251	WA-9	4	07/17/02	195	301	160	<LOD	285	5648	550	<LOD	480	<LOD	525	<LOD	600	<LOD	270	<LOD	450	<LOD	
256	WA-9	8	07/17/02	210	<LOD	315	<LOD	495	14297.6	1100	<LOD	870	<LOD	765	<LOD	585	<LOD	125.85	<LOD	315	<LOD	
243	WA-10	2	07/17/02	225	706.8	220	<LOD	480	14297.6	1100	<LOD	795	<LOD	705	<LOD	465	<LOD	146.4	<LOD	255	<LOD	
246	WA-10	4	07/17/02	165	<LOD	240	<LOD	420	11398.4	949.6	1908.8	600	<LOD	630	<LOD	870	<LOD	180	<LOD	375	<LOD	

**Table 4: XRF Data for the Western Area
(page16 of 22)**

XLNo	Boring Location	Depth (ft)	Date	Cs	Cs Error	Te	Te Error	Sb	Sb Error	Sn	Sn Error	Cd	Cd Error	Ag	Ag Error	Pd	Pd Error
260	WA-8	2	07/17/02	61.5	<LOD	180	<LOD	180	<LOD	855	<LOD	50.85	<LOD	450	<LOD	138.45	
263	WA-8	4	07/17/02	210	<LOD	44.25	<LOD	42.9	<LOD	675	<LOD	130.05	<LOD	285	<LOD	86.25	
250	WA-9	2	07/17/02	70.5	<LOD	21.75	<LOD	195	<LOD	750	<LOD	375	<LOD	270	<LOD	12.3	
213	WA-1	2	07/17/02	240	<LOD	22.5	<LOD	27.9	<LOD	705	<LOD	9.15	<LOD	225	<LOD	76.8	
215	WA-1	4	07/17/02	148.8	<LOD	195	<LOD	39.3	<LOD	660	<LOD	28.95	<LOD	210	<LOD	23.1	
217	WA-2	2	07/17/02	165	<LOD	22.05	<LOD	30	<LOD	630	<LOD	6.75	<LOD	225	<LOD	29.1	
220	WA-2	4	07/17/02	165	<LOD	107.85	<LOD	165	<LOD	615	<LOD	129.15	<LOD	225	<LOD	84.6	
221	WA-3	2	07/17/02	405	<LOD	285	<LOD	50.85	<LOD	810	<LOD	39.9	<LOD	405	<LOD	47.7	
224	WA-3	4	07/17/02	34.35	<LOD	146.1	<LOD	30.45	<LOD	600	<LOD	7.2	<LOD	315	<LOD	8.7	
225	WA-4	2	07/17/02	270	<LOD	180	<LOD	35.7	<LOD	750	<LOD	12.45	<LOD	225	<LOD	165	
228	WA-4	4	07/17/02	56.85	<LOD	71.85	<LOD	52.35	<LOD	810	<LOD	54.3	<LOD	240	<LOD	150	
229	WA-5	2	07/17/02	180	<LOD	165	<LOD	240	<LOD	840	<LOD	34.5	<LOD	285	<LOD	27.6	
232	WA-5	4	07/17/02	33.75	<LOD	40.95	<LOD	35.25	<LOD	720	<LOD	29.4	<LOD	255	<LOD	23.7	
233	WA-6	2	07/17/02	45	<LOD	22.8	<LOD	195	<LOD	825	<LOD	165	<LOD	360	<LOD	10.95	
236	WA-6	4	07/17/02	225	<LOD	165	<LOD	46.2	<LOD	735	<LOD	43.5	<LOD	240	<LOD	35.1	
237	WA-7	2	07/17/02	240	<LOD	20.7	<LOD	34.95	<LOD	570	<LOD	139.65	<LOD	255	<LOD	64.65	
240	WA-7	4	07/17/02	150	<LOD	18	<LOD	24	<LOD	600	<LOD	7.05	<LOD	225	<LOD	6.15	
257	WA-8	2	07/17/02	315	<LOD	300	<LOD	225	<LOD	885	<LOD	48.6	<LOD	300	<LOD	39	
261	WA-8	4	07/17/02	26.4	<LOD	128.55	<LOD	39.15	<LOD	645	<LOD	150	<LOD	165	<LOD	5.7	
247	WA-9	2	07/17/02	195	<LOD	138.15	<LOD	41.25	<LOD	660	<LOD	116.4	<LOD	285	<LOD	23.1	
251	WA-9	4	07/17/02	225	<LOD	59.7	<LOD	165	<LOD	795	<LOD	86.55	<LOD	300	<LOD	148.35	
256	WA-9	8	07/17/02	103.5	<LOD	99.3	<LOD	145.95	<LOD	510	<LOD	97.65	<LOD	165	<LOD	77.85	
243	WA-10	2	07/17/02	117.15	<LOD	17.85	<LOD	30	<LOD	570	<LOD	97.5	<LOD	195	<LOD	63.9	
246	WA-10	4	07/17/02	195	<LOD	137.85	<LOD	41.4	<LOD	570	<LOD	165	<LOD	240	<LOD	7.8	

**Table 4: XRF Data for the Northern Area
(page17 of 22)**

XLNo	Boring Location	Depth (ft)	Date	Mo	Mo Error	Zr	Zr Error	Sr	Sr Error	Rb	Rb Error	Pb	Pb Error	Se	Se Error	As	As Error	Hg	Hg Error	Zn	Zn Error	Cu
176	NA-1	01/02/00	37454.46	<LOD	42.15	197.5	36.1	32.3	21	86.3	48.3	<LOD	34.05	<LOD	20.7	<LOD	36.6	<LOD	29.1	223.8	88.6	<LOD
179	NA-1	01/04/00	37454.46	<LOD	45.75	179.6	37.4	59.5	25.9	89.5	52.9	<LOD	31.8	<LOD	23.7	<LOD	37.2	<LOD	28.95	<LOD	112.65	<LOD
180	NA-2	01/02/00	37454.47	<LOD	45.9	195.6	37.4	65.5	25.6	137.7	59.9	<LOD	47.85	<LOD	17.4	<LOD	40.05	<LOD	27	<LOD	109.2	<LOD
183	NA-2	01/04/00	37454.47	<LOD	42.6	230	39.2	66.3	25.2	142.6	59.4	<LOD	45.15	<LOD	20.7	<LOD	33.3	<LOD	29.7	<LOD	93.45	<LOD
184	NA-3	01/02/00	37454.48	<LOD	42.9	189.2	38.3	35.7	23.1	112.1	57.4	<LOD	49.8	<LOD	24.3	<LOD	39.45	<LOD	24	207	92	<LOD
187	NA-3	01/04/00	37454.48	<LOD	50.4	202.8	39.5	38.3	23.7	196.3	72.4	<LOD	62.1	<LOD	22.5	<LOD	43.65	<LOD	28.05	<LOD	115.65	<LOD
188	NA-4	01/02/00	37454.49	<LOD	44.55	228.8	39.9	59.3	24.9	113.8	55.4	<LOD	47.1	<LOD	26.1	<LOD	38.55	<LOD	29.55	416.4	100	<LOD
191	NA-4	01/04/00	37454.49	<LOD	58.65	135.7	38.6	<LOD	38.85	121	67.9	<LOD	47.85	<LOD	16.05	<LOD	42.9	<LOD	34.95	<LOD	149.4	<LOD
192	NA-5	01/02/00	37454.49	<LOD	46.65	146	35.7	63.9	27.4	138.1	64.6	<LOD	49.95	<LOD	26.4	<LOD	41.7	<LOD	29.85	196.8	90.6	<LOD
195	NA-5	01/04/00	37454.49	<LOD	45.3	225.6	39.8	74.2	26.6	111	55.2	<LOD	37.35	<LOD	22.35	<LOD	36.9	<LOD	28.65	<LOD	102.45	<LOD
196	NA-6	01/02/00	37454.51	<LOD	42.3	136	32.1	44.5	23.3	148.4	61.7	<LOD	41.7	<LOD	20.85	<LOD	40.8	<LOD	30.75	122.9	80.2	<LOD
199	NA-6	01/04/00	37454.51	<LOD	46.95	234	44.9	107.8	33	99.1	58.9	<LOD	63.3	<LOD	21.45	<LOD	45.75	<LOD	30.45	<LOD	120.3	<LOD
208	NA-7	01/02/00	37454.52	<LOD	51.3	139.4	34.7	43.2	24.6	100.1	56.2	<LOD	49.2	<LOD	27.3	<LOD	38.1	<LOD	26.85	289	100	<LOD
211	NA-7	01/04/00	37454.52	<LOD	45.45	233	40.9	55.2	25	112.4	56.4	<LOD	43.5	<LOD	21.3	<LOD	38.85	<LOD	32.4	<LOD	105.3	<LOD
200	NA-8	01/02/00	37454.51	<LOD	48	166.2	37	44.9	24.8	91	54.2	<LOD	46.95	<LOD	21.9	<LOD	38.25	<LOD	33.45	1868.8	230	<LOD
202	NA-8	01/04/00	37454.51	<LOD	41.25	185.3	35	50	22.9	118.2	54.1	<LOD	37.8	<LOD	17.25	<LOD	34.65	<LOD	28.5	274.2	89.7	<LOD
204	NA-9	01/02/00	37454.52	<LOD	45.3	214	40	<LOD	33.45	116.6	57.7	<LOD	47.4	<LOD	23.1	<LOD	39.75	<LOD	29.85	584.4	130	<LOD
207	NA-9	01/04/00	37454.52	<LOD	49.8	211.8	41.6	88.2	30	92.9	55.5	<LOD	56.25	<LOD	26.4	<LOD	42.75	<LOD	26.55	<LOD	130.95	<LOD
383	NA-10	01/02/00	37455.65	<LOD	45.45	261	42.6	47.3	23.6	158.7	63.4	<LOD	39.6	<LOD	21	<LOD	39.15	<LOD	26.7	636	140	<LOD
386	NA-10	01/04/00	37455.65	<LOD	39.45	169.6	29	51.5	19.8	127.3	47.8	<LOD	40.5	<LOD	18	<LOD	30	<LOD	21.6	<LOD	84.75	<LOD

Table 4: XRF Data for the Northern Area
(page18 of 22)

XLNo	Boring Location	Depth (ft)	Date	Cu	Ni	Ni Error	Co	Co Error	Fe	Fe Error	Mn	Mn Error	Cr	Cr Error	Eu	Eu Error	La	La Error	Ba	Ba Error	Cs
176	NA-1	01/02/00	37454.46	195	357.6	210	<LOD	465	13696	1100	<LOD	810	<LOD	675	<LOD	510	<LOD	315	<LOD	525	<LOD
179	NA-1	01/04/00	37454.46	195	<LOD	315	<LOD	510	13696	1100	<LOD	870	<LOD	750	<LOD	1125	<LOD	240	804.4	460	<LOD
180	NA-2	01/02/00	37454.47	165	<LOD	285	<LOD	570	19891.2	1400	<LOD	930	<LOD	795	<LOD	960	<LOD	22.65	<LOD	600	<LOD
183	NA-2	01/04/00	37454.47	165	<LOD	285	<LOD	435	10099.2	880	778	500	<LOD	675	<LOD	615	<LOD	195	<LOD	510	<LOD
184	NA-3	01/02/00	37454.48	195	<LOD	330	<LOD	645	23091.2	1699.2	<LOD	1080	<LOD	945	<LOD	750	<LOD	180	<LOD	525	<LOD
187	NA-3	01/04/00	37454.48	165	<LOD	285	<LOD	600	20492.8	1500	1060	700	<LOD	915	<LOD	705	<LOD	129.45	<LOD	330	<LOD
188	NA-4	01/02/00	37454.49	165	<LOD	240	<LOD	420	10796.8	940	<LOD	750	<LOD	720	<LOD	705	<LOD	18.6	<LOD	360	<LOD
191	NA-4	01/04/00	37454.49	255	1240	330	<LOD	495	7084.8	900	<LOD	795	<LOD	825	<LOD	1080	<LOD	195	<LOD	330	<LOD
192	NA-5	01/02/00	37454.49	180	<LOD	300	<LOD	630	22195.2	1699.2	<LOD	1095	<LOD	885	<LOD	735	<LOD	210	<LOD	450	<LOD
195	NA-5	01/04/00	37454.49	165	<LOD	255	<LOD	405	8576	820	<LOD	675	<LOD	600	<LOD	750	<LOD	141.45	<LOD	405	<LOD
196	NA-6	01/02/00	37454.51	195	<LOD	315	<LOD	540	18188.8	1300	<LOD	855	<LOD	855	<LOD	660	<LOD	12.3	<LOD	180	<LOD
199	NA-6	01/04/00	37454.51	225	1069.6	280	<LOD	525	10899.2	1000	<LOD	795	<LOD	795	<LOD	900	<LOD	19.95	1109.6	550	<LOD
208	NA-7	01/02/00	37454.52	210	618	250	<LOD	555	15897.6	1300	<LOD	975	<LOD	900	<LOD	855	<LOD	165	<LOD	480	<LOD
211	NA-7	01/04/00	37454.52	180	<LOD	330	<LOD	525	16396.8	1300	<LOD	840	<LOD	750	<LOD	330	<LOD	240	<LOD	765	<LOD
200	NA-8	01/02/00	37454.51	315	2819.2	370	<LOD	450	9235.2	920	<LOD	795	<LOD	795	<LOD	430	<LOD	19.1	<LOD	420	<LOD
202	NA-8	01/04/00	37454.51	180	<LOD	285	<LOD	405	10297.6	880	<LOD	720	<LOD	690	<LOD	510	<LOD	14.3	<LOD	762	<LOD
204	NA-9	01/02/00	37454.52	225	470	230	<LOD	570	16499.2	1300	<LOD	915	<LOD	780	<LOD	720	<LOD	165	<LOD	405	<LOD
207	NA-9	01/04/00	37454.52	240	2499.2	350	<LOD	525	12198.4	1100	<LOD	840	<LOD	750	<LOD	825	<LOD	165	<LOD	510	<LOD
383	NA-10	01/02/00	37455.65	270	4080	410	<LOD	525	15795.2	1200	<LOD	870	<LOD	765	<LOD	540	<LOD	117.75	<LOD	315	<LOD
386	NA-10	01/04/00	37455.65	138.75	<LOD	210	<LOD	315	9158.4	700	<LOD	540	<LOD	525	<LOD	705	<LOD	15	<LOD	315	<LOD

**Table 4: XRF Data for the Northern Area
(page19 of 22)**

XLNo	Boring Location	Depth (ft)	Date	Cs	Cs Error	Te	Te Error	Sb	Sb Error	Sn	Sn Error	Cd	Cd Error	Ag	Ag Error	Pd	Pd Error
176	NA-1	01/02/00	37454.46	150	<LOD	165	<LOD	34.05	<LOD	780	<LOD	9.3	<LOD	270	<LOD	7.2	
179	NA-1	01/04/00	37454.46	195	<LOD	41.85	<LOD	35.25	<LOD	750	<LOD	29.4	<LOD	315	<LOD	75.75	
180	NA-2	01/02/00	37454.47	57.15	<LOD	59.55	<LOD	225	<LOD	870	<LOD	65.7	<LOD	300	<LOD	35.25	
183	NA-2	01/04/00	37454.47	165	<LOD	21.6	<LOD	29.4	<LOD	675	<LOD	9.3	<LOD	285	<LOD	87.9	
184	NA-3	01/02/00	37454.48	255	<LOD	210	<LOD	33.15	<LOD	675	<LOD	9	<LOD	225	<LOD	80.7	
187	NA-3	01/04/00	37454.48	80.85	<LOD	111.6	<LOD	110.1	<LOD	630	<LOD	36.75	<LOD	210	<LOD	63.3	
188	NA-4	01/02/00	37454.49	195	<LOD	23.85	<LOD	32.1	<LOD	795	<LOD	11.1	<LOD	330	<LOD	104.55	
191	NA-4	01/04/00	37454.49	210	<LOD	22.2	<LOD	28.65	<LOD	630	<LOD	6.9	<LOD	240	<LOD	6.6	
192	NA-5	01/02/00	37454.49	35.55	<LOD	20.55	<LOD	165	<LOD	735	<LOD	9.3	<LOD	360	<LOD	9.75	
195	NA-5	01/04/00	37454.49	225	<LOD	165	<LOD	165	<LOD	630	<LOD	32.7	<LOD	225	<LOD	89.1	
196	NA-6	01/02/00	37454.51	150	<LOD	120.45	<LOD	90.6	<LOD	480	<LOD	72.15	<LOD	150	<LOD	4.5	
199	NA-6	01/04/00	37454.51	270	<LOD	195	<LOD	195	<LOD	675	<LOD	38.4	<LOD	225	<LOD	31.05	
208	NA-7	01/02/00	37454.52	210	<LOD	133.5	<LOD	31.2	<LOD	660	<LOD	59.85	<LOD	210	<LOD	73.95	
211	NA-7	01/04/00	37454.52	65.4	<LOD	270	<LOD	210	<LOD	690	<LOD	10.05	<LOD	300	<LOD	107.7	
200	NA-8	01/02/00	37454.51	250	<LOD	32.1	<LOD	27.9	<LOD	660	<LOD	21.3	<LOD	330	<LOD	6.7	
202	NA-8	01/04/00	37454.51	180	<LOD	25.1	<LOD	33.1	<LOD	630	<LOD	7.5	<LOD	230	<LOD	7.6	
204	NA-9	01/02/00	37454.52	136.35	<LOD	132.6	<LOD	28.95	<LOD	630	<LOD	8.25	<LOD	240	<LOD	73.65	
207	NA-9	01/04/00	37454.52	137.25	<LOD	180	<LOD	31.65	<LOD	660	<LOD	12.6	<LOD	240	<LOD	87.45	
383	NA-10	01/02/00	37455.65	180	<LOD	100.8	<LOD	100.8	<LOD	600	<LOD	84.15	<LOD	225	<LOD	30.75	
386	NA-10	01/04/00	37455.65	285	<LOD	123.45	<LOD	128.25	<LOD	600	<LOD	6.9	<LOD	195	<LOD	5.25	

Table 4: XRF Data for the Manufacturing Area
(page20 of 22)

XLNo	Boring Location	Depth (ft)	Date	Mo	Mo Error	Zr	Zr Error	Sr	Sr Error	Rb	Rb Error	Pb	Pb Error	Se	Se Error	As	As Error	Hg	Hg Error	Zn	Zn Error	Cu
164	MA-1	01/03/00	37454.42	<LOD	53.4	205	43.1	80.1	30.7	<LOD	82.05	<LOD	56.25	<LOD	26.1	<LOD	47.85	<LOD	32.4	476	130	<LOD
167	MA-1	01/04/00	37454.42	<LOD	52.05	211.8	41.7	77.4	28.8	<LOD	70.2	<LOD	46.05	<LOD	22.35	<LOD	39.15	<LOD	29.7	210	91.1	<LOD
154	MA-2	01/03/00	37454.4	<LOD	40.95	265.2	41.4	90.3	27.2	112.2	53.6	<LOD	45.75	<LOD	18.3	<LOD	35.4	<LOD	22.2	327	92.8	<LOD
157	MA-2	01/04/00	37454.4	<LOD	35.85	135.1	28.2	42.6	20.1	69.6	40.6	<LOD	27	<LOD	19.5	<LOD	28.05	<LOD	16.2	<LOD	86.25	<LOD
158	MA-3	01/06/00	37454.4	<LOD	39.15	179.1	31.1	<LOD	26.1	<LOD	47.4	<LOD	44.1	<LOD	15.75	<LOD	32.7	<LOD	19.2	<LOD	85.35	<LOD
161	MA-3	01/08/00	37454.41	<LOD	44.85	251.8	38.1	75.1	24.2	63	41.3	<LOD	32.55	<LOD	15.15	<LOD	30.9	<LOD	25.35	<LOD	91.8	<LOD
146	MA-4	01/06/00	37454.37	<LOD	46.05	211.4	38	54.2	24	144.8	60	<LOD	47.1	<LOD	19.05	<LOD	32.4	<LOD	26.4	261.6	92.1	<LOD
149	MA-4	01/08/00	37454.38	<LOD	45.75	248.8	39.8	57.5	23.7	113.2	53.2	<LOD	44.7	<LOD	16.65	<LOD	34.5	<LOD	26.4	493.2	110	<LOD
150	MA-5	01/03/00	37454.38	<LOD	42.9	185.7	35.1	44.1	22.4	164.5	61.9	<LOD	53.4	<LOD	22.8	<LOD	41.25	<LOD	26.55	398	100	<LOD
153	MA-5	01/04/00	37454.39	<LOD	47.55	171.3	37.6	45.2	24.9	134.2	63.1	<LOD	49.2	<LOD	21.45	<LOD	42.75	<LOD	31.65	313	110	<LOD
142	MA-6	01/04/00	37454.36	<LOD	45.45	169.6	35.5	62.9	25.6	131.6	59.5	<LOD	47.4	<LOD	21.15	<LOD	39.15	<LOD	31.65	1739.2	200	<LOD
145	MA-6	01/06/00	37454.36	<LOD	43.5	208.2	36.7	56.9	23.6	148.7	59	<LOD	50.85	<LOD	23.25	<LOD	37.5	<LOD	24.75	186.3	76	<LOD
138	MA-7	01/02/00	37454.35	<LOD	44.55	169.3	34.1	51.7	23.4	124	55.9	<LOD	47.25	<LOD	18.75	<LOD	37.5	<LOD	26.55	193.5	82.8	<LOD
141	MA-7	01/04/00	37454.35	<LOD	45.15	254	39.6	77.9	25.4	92.3	48.6	<LOD	46.05	<LOD	19.2	<LOD	34.35	<LOD	23.85	<LOD	92.7	<LOD
168	MA-8	01/02/00	37454.43	<LOD	36.9	211.6	29.7	48.8	18.3	126.7	44.3	<LOD	36	<LOD	12.45	<LOD	30.3	<LOD	18	295	78.8	<LOD
171	MA-8	01/04/00	37454.43	<LOD	37.2	203.2	29.2	82.3	21	120.7	43.8	<LOD	34.05	<LOD	17.7	<LOD	30.9	<LOD	23.7	195.9	64	<LOD
172	MA-9	01/02/00	37454.44	<LOD	53.55	222.2	42.1	64.8	27.1	114.3	59.2	<LOD	40.05	<LOD	26.25	<LOD	38.55	<LOD	31.65	1500	200	<LOD
175	MA-9	01/04/00	37454.44	<LOD	49.35	163.2	40	48.3	27.4	<LOD	82.2	<LOD	54.15	<LOD	26.55	<LOD	46.8	<LOD	35.7	1180	190	<LOD
137	MA-10	01/02/00	37454.34	<LOD	45.9	233.8	37.9	60.1	23.4	133.7	55.3	<LOD	44.85	<LOD	23.4	<LOD	30	<LOD	22.35	272.6	83.9	<LOD
134	MA-10	01/04/00	37454.34	<LOD	42.75	176.5	34	44.3	22.2	144.4	58.3	<LOD	41.25	<LOD	25.5	<LOD	32.4	<LOD	30.45	262.4	86.2	<LOD

Table 4: XRF Data for the Manufacturing Area
(page21 of 22)

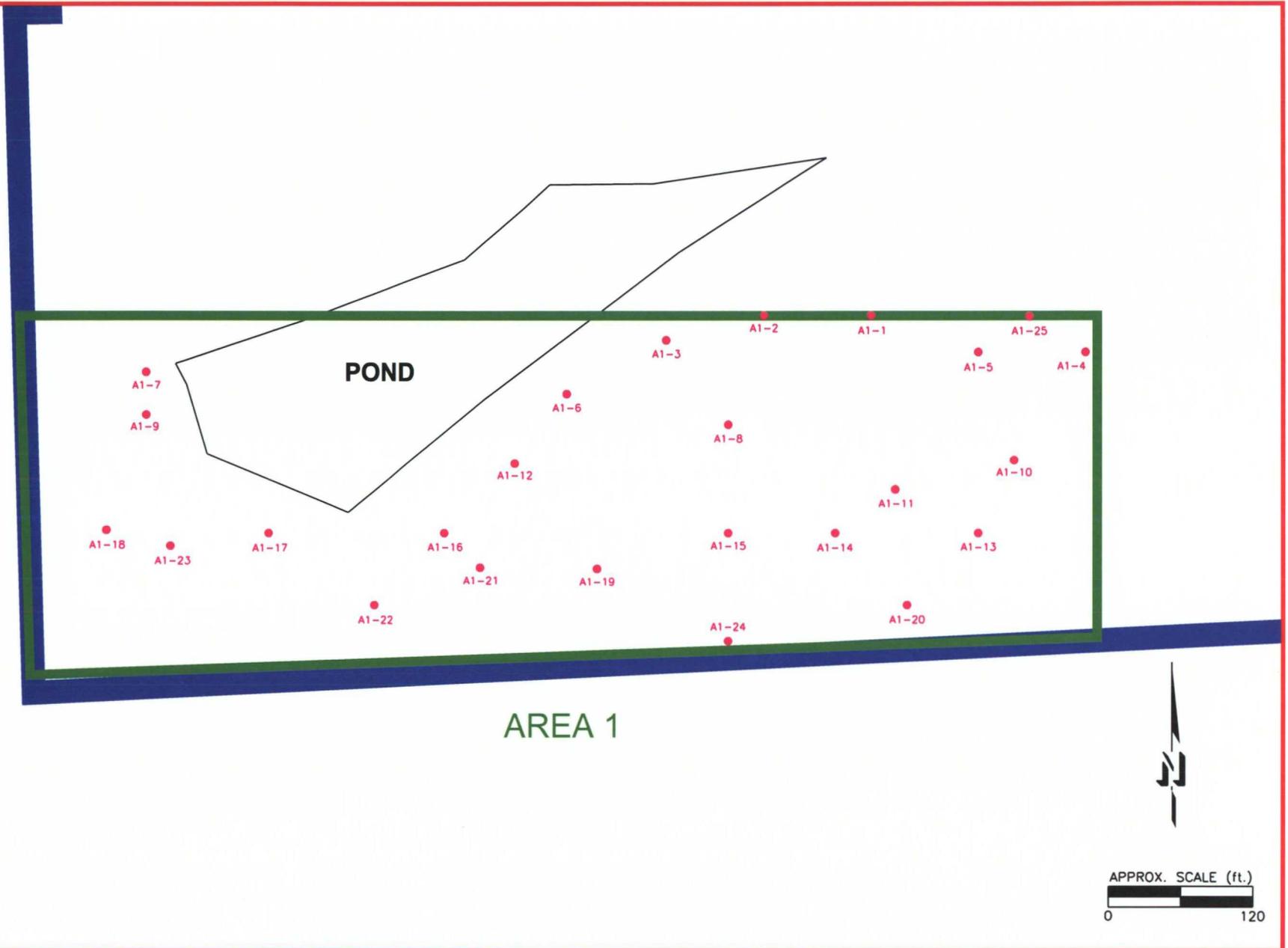
XLNo	Boring Location	Depth (ft)	Date	Cu	Cu Error	Ni	Ni Error	Co	Co Error	Fe	Fe Error	Mn	Mn Error	Cr	Cr Error	Eu	Eu Error	La	La Error	Ba	Ba Error	Cs
164	MA-1	01/03/00	37454.42	255	<LOD	420	<LOD	975	48793.6	3299.2	<LOD	1650	<LOD	1244.4	<LOD	1080	<LOD	20.25	<LOD	300	<LOD	
167	MA-1	01/04/00	37454.42	180	<LOD	270	<LOD	330	5600	680	<LOD	600	<LOD	615	<LOD	840	<LOD	210	<LOD	405	<LOD	
154	MA-2	01/03/00	37454.4	180	<LOD	255	<LOD	360	7449.6	730	1420	510	<LOD	705	<LOD	915	<LOD	195	457.2	300	<LOD	
157	MA-2	01/04/00	37454.4	147.9	<LOD	225	<LOD	300	5968	590	1819.2	480	<LOD	615	<LOD	870	<LOD	180	<LOD	330	<LOD	
158	MA-3	01/06/00	37454.4	138.15	<LOD	210	<LOD	375	10195.2	810	3478.4	630	<LOD	675	<LOD	870	<LOD	195	<LOD	420	<LOD	
161	MA-3	01/08/00	37454.41	130.5	<LOD	195	<LOD	300	5228.8	560	<LOD	510	<LOD	540	<LOD	1170	<LOD	135.3	661.2	350	<LOD	
146	MA-4	01/06/00	37454.37	195	639.6	220	<LOD	480	14092.8	1100	<LOD	840	<LOD	780	<LOD	1050	<LOD	102.75	986.4	510	<LOD	
149	MA-4	01/08/00	37454.38	180	<LOD	285	<LOD	420	11897.6	960	<LOD	735	<LOD	750	<LOD	630	<LOD	210	<LOD	375	<LOD	
150	MA-5	01/03/00	37454.38	180	<LOD	285	<LOD	540	20390.4	1400	<LOD	945	<LOD	840	<LOD	495	<LOD	133.5	<LOD	360	<LOD	
153	MA-5	01/04/00	37454.39	210	<LOD	345	<LOD	555	17792	1400	<LOD	975	<LOD	810	<LOD	600	<LOD	285	<LOD	510	<LOD	
142	MA-6	01/04/00	37454.36	240	<LOD	270	<LOD	540	17689.6	1300	<LOD	930	<LOD	840	<LOD	1170	<LOD	255	<LOD	375	<LOD	
145	MA-6	01/06/00	37454.36	141.15	<LOD	240	<LOD	405	8985.6	810	863.2	480	<LOD	705	<LOD	1125	<LOD	17.7	<LOD	570	<LOD	
138	MA-7	01/02/00	37454.35	180	<LOD	300	<LOD	525	17996.8	1300	<LOD	870	<LOD	750	<LOD	1155	<LOD	195	615.6	410	<LOD	
141	MA-7	01/04/00	37454.35	146.1	<LOD	240	<LOD	450	13491.2	1000	<LOD	750	<LOD	675	<LOD	405	<LOD	15.6	<LOD	330	<LOD	
168	MA-8	01/02/00	37454.43	180	1289.6	210	<LOD	405	16000	949.6	1089.6	480	<LOD	690	<LOD	750	<LOD	180	<LOD	465	<LOD	
171	MA-8	01/04/00	37454.43	131.25	<LOD	195	<LOD	345	12000	770	<LOD	600	<LOD	555	<LOD	795	<LOD	14.25	453.2	290	<LOD	
172	MA-9	01/02/00	37454.44	240	<LOD	300	<LOD	570	16998.4	1400	<LOD	975	<LOD	870	<LOD	1230	<LOD	225	<LOD	510	<LOD	
175	MA-9	01/04/00	37454.44	270	<LOD	390	<LOD	495	10496	1100	<LOD	855	<LOD	780	<LOD	570	<LOD	225	<LOD	435	<LOD	
137	MA-10	01/02/00	37454.34	150	<LOD	255	<LOD	390	8934.4	790	<LOD	630	<LOD	690	<LOD	525	<LOD	180	<LOD	360	<LOD	
134	MA-10	01/04/00	37454.34	165	<LOD	255	<LOD	465	14796.8	1100	<LOD	780	<LOD	750	<LOD	1020	<LOD	255	867.2	560	<LOD	

**Table 4: XRF Data for the Manufacturing Area
(page22 of 22)**

XLNo	Boring Location	Depth (ft)	Date	Cs	Cs Error	Te	Te Error	Sb	Sb Error	Sn	Sn Error	Cd	Cd Error	Ag	Ag Error	Pd	Pd Error
164	MA-1	01/03/00	37454.42	43.65	<LOD	52.95	<LOD	195	<LOD	825	<LOD	165	<LOD	270	<LOD	150	
167	MA-1	01/04/00	37454.42	33.6	<LOD	20.55	<LOD	165	<LOD	720	<LOD	8.4	<LOD	255	<LOD	6.9	
154	MA-2	01/03/00	37454.4	111.6	<LOD	195	<LOD	115.2	<LOD	600	<LOD	22.95	<LOD	240	<LOD	62.7	
157	MA-2	01/04/00	37454.4	31.95	<LOD	40.2	<LOD	40.5	<LOD	690	<LOD	121.05	<LOD	270	<LOD	80.4	
158	MA-3	01/06/00	37454.4	270	<LOD	225	<LOD	43.65	<LOD	780	<LOD	74.55	<LOD	270	<LOD	84.45	
161	MA-3	01/08/00	37454.41	180	<LOD	19.35	<LOD	24.9	<LOD	660	<LOD	26.4	<LOD	255	<LOD	83.7	
146	MA-4	01/06/00	37454.37	195	<LOD	195	<LOD	39	<LOD	735	<LOD	28.65	<LOD	225	<LOD	22.8	
149	MA-4	01/08/00	37454.38	126.75	<LOD	105.45	<LOD	136.95	<LOD	600	<LOD	42.3	<LOD	140.85	<LOD	33.75	
150	MA-5	01/03/00	37454.38	40.2	<LOD	150	<LOD	150	<LOD	570	<LOD	22.2	<LOD	138.9	<LOD	84.15	
153	MA-5	01/04/00	37454.39	138.45	<LOD	134.4	<LOD	137.25	<LOD	660	<LOD	27	<LOD	195	<LOD	36.6	
142	MA-6	01/04/00	37454.36	35.25	<LOD	39.9	<LOD	34.65	<LOD	675	<LOD	28.2	<LOD	225	<LOD	22.95	
145	MA-6	01/06/00	37454.36	225	<LOD	225	<LOD	41.55	<LOD	705	<LOD	131.1	<LOD	270	<LOD	8.25	
138	MA-7	01/02/00	37454.35	150	<LOD	149.4	<LOD	31.65	<LOD	735	<LOD	8.85	<LOD	270	<LOD	7.35	
141	MA-7	01/04/00	37454.35	360	<LOD	25.2	<LOD	33.3	<LOD	690	<LOD	110.4	<LOD	210	<LOD	72.3	
168	MA-8	01/02/00	37454.43	255	<LOD	210	<LOD	33.15	<LOD	675	<LOD	7.8	<LOD	225	<LOD	6.15	
171	MA-8	01/04/00	37454.43	126	<LOD	103.8	<LOD	31.05	<LOD	585	<LOD	102.6	<LOD	195	<LOD	62.25	
172	MA-9	01/02/00	37454.44	195	<LOD	180	<LOD	45.3	<LOD	750	<LOD	37.2	<LOD	255	<LOD	55.65	
175	MA-9	01/04/00	37454.44	270	<LOD	22.5	<LOD	132.6	<LOD	705	<LOD	8.55	<LOD	210	<LOD	29.55	
137	MA-10	01/02/00	37454.34	143.7	<LOD	140.1	<LOD	30.3	<LOD	780	<LOD	8.85	<LOD	138.9	<LOD	3.6	
134	MA-10	01/04/00	37454.34	210	<LOD	255	<LOD	285	<LOD	870	<LOD	11.4	<LOD	345	<LOD	9.45	

FIGURES

CPFs/Eagle Zinc-Hillsboro/Monthly Progress Report (RIFS)/July 2002 Progress Report/Figure 1 Soil Borings



ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

Proposed Soil Sample Locations
Area 1
Eagle Zinc, Hillsboro, Illinois

Figure
1a

Drafter: APR

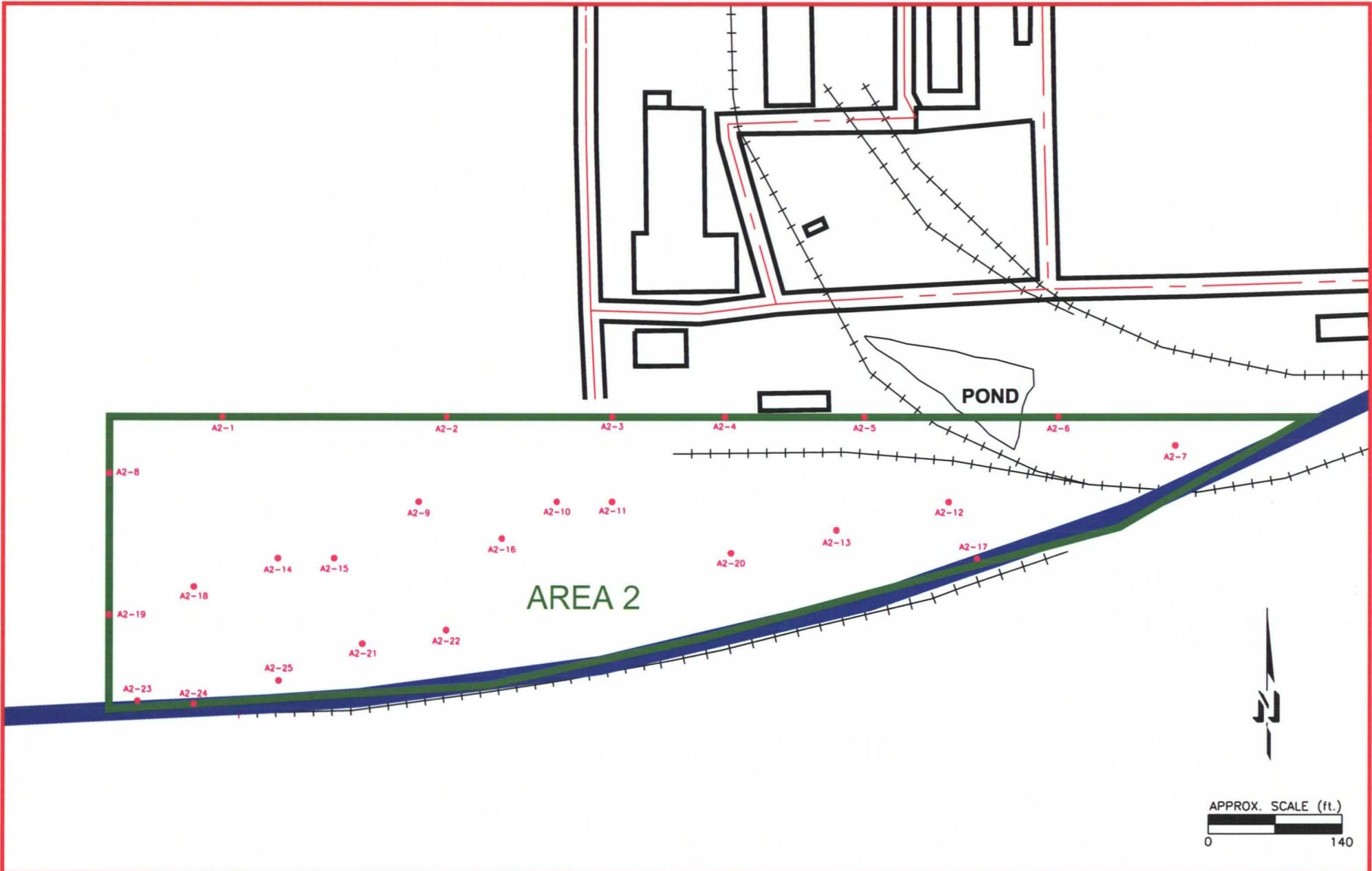
Date: 8/06/02

Contract Number: 21-7400E

Approved:

Revised:

CPF:\Eagle Zinc-Hillsboro\Monthly Progress Report (RIFS)\July 2002 Progress Report\Figure 1 Soil Borings



ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

Proposed Soil Sample Locations
Area 2
Eagle Zinc, Hillsboro, Illinois

Figure
1b

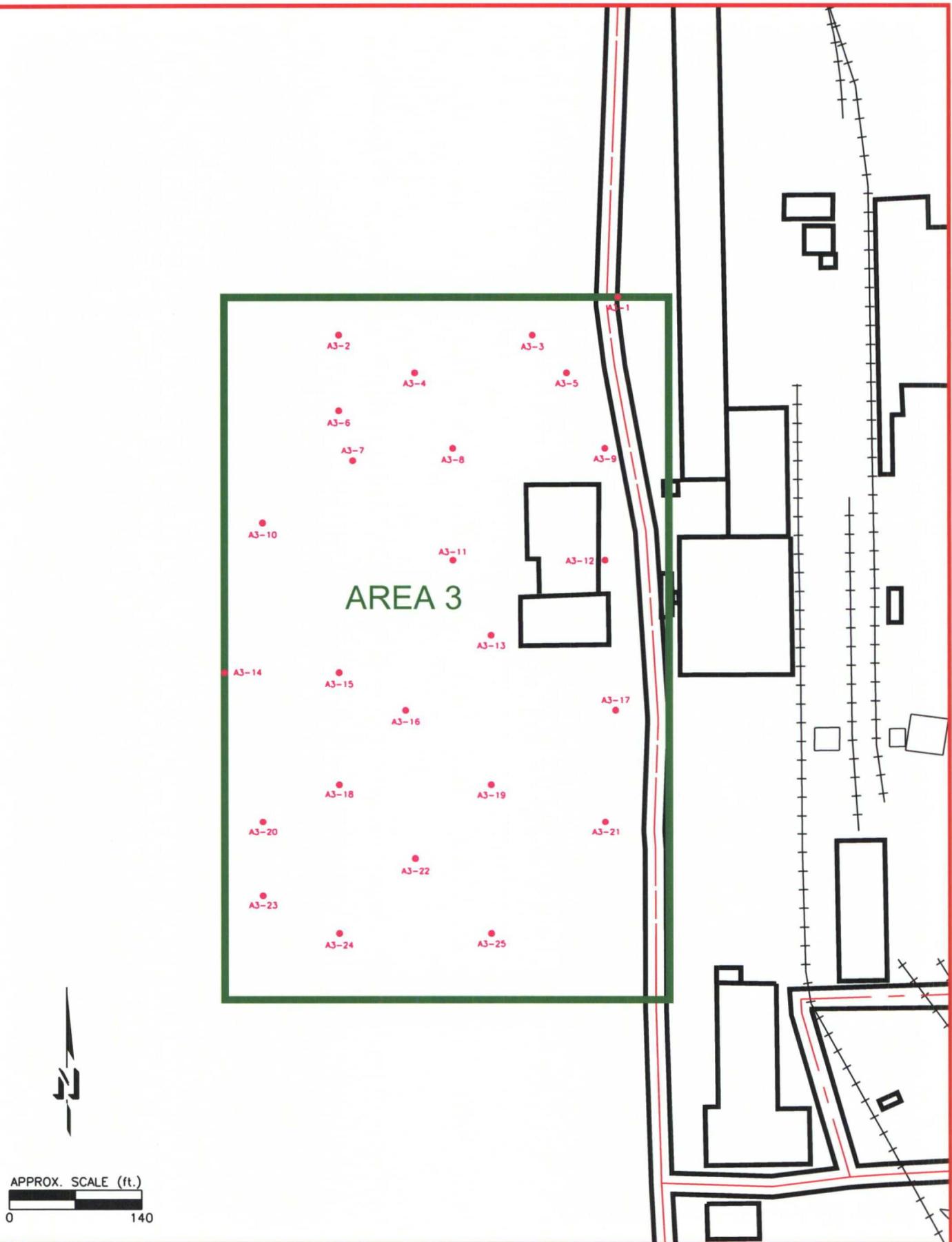
Drafter: APR

Date: 8/06/02

Contract Number: 21-7400E

Approved:

Revised:



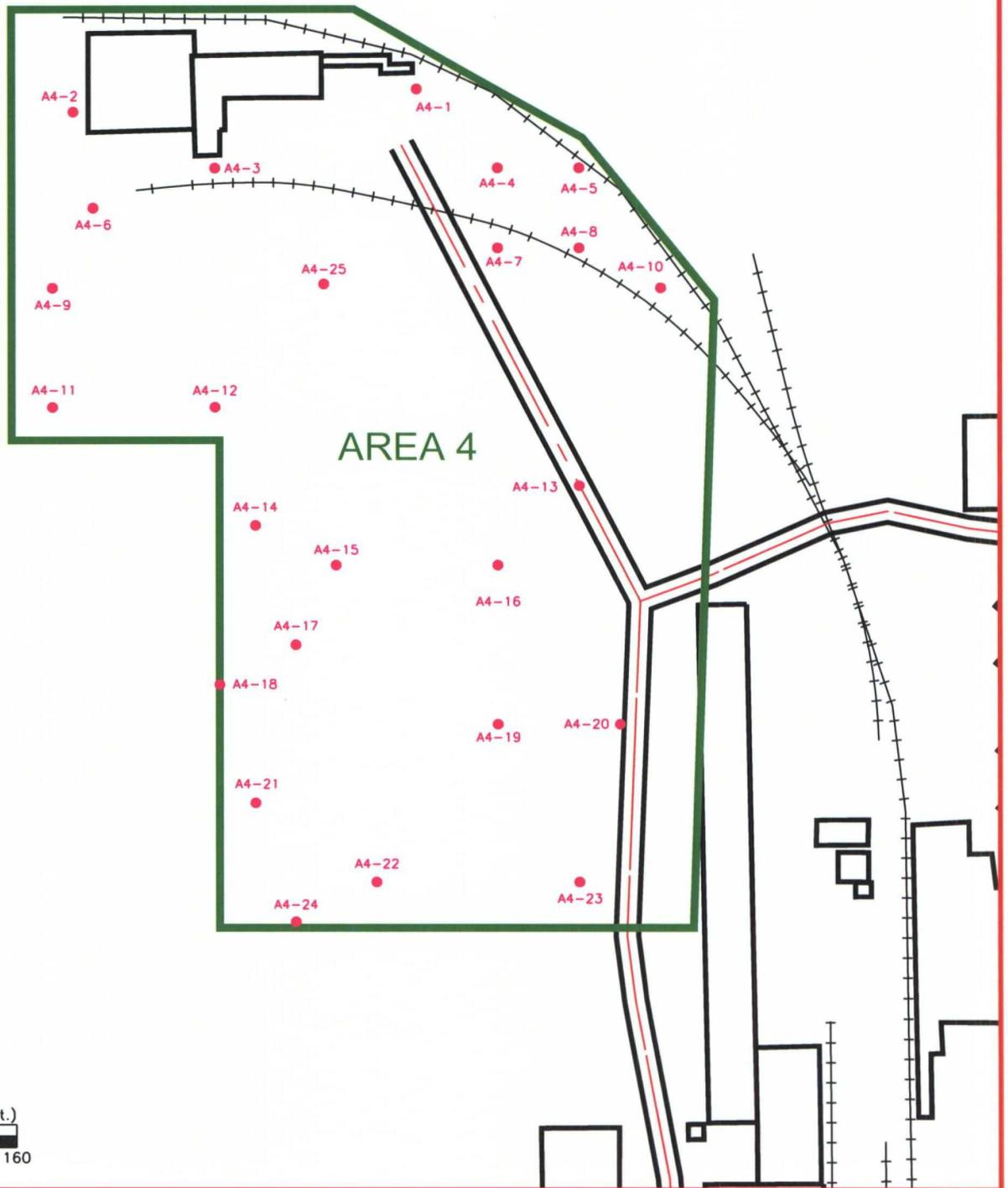
APPROX. SCALE (ft.)
0 140

ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

Proposed Soil Sample Locations
Area 3
Eagle Zinc, Hillsboro, Illinois

Figure
1c



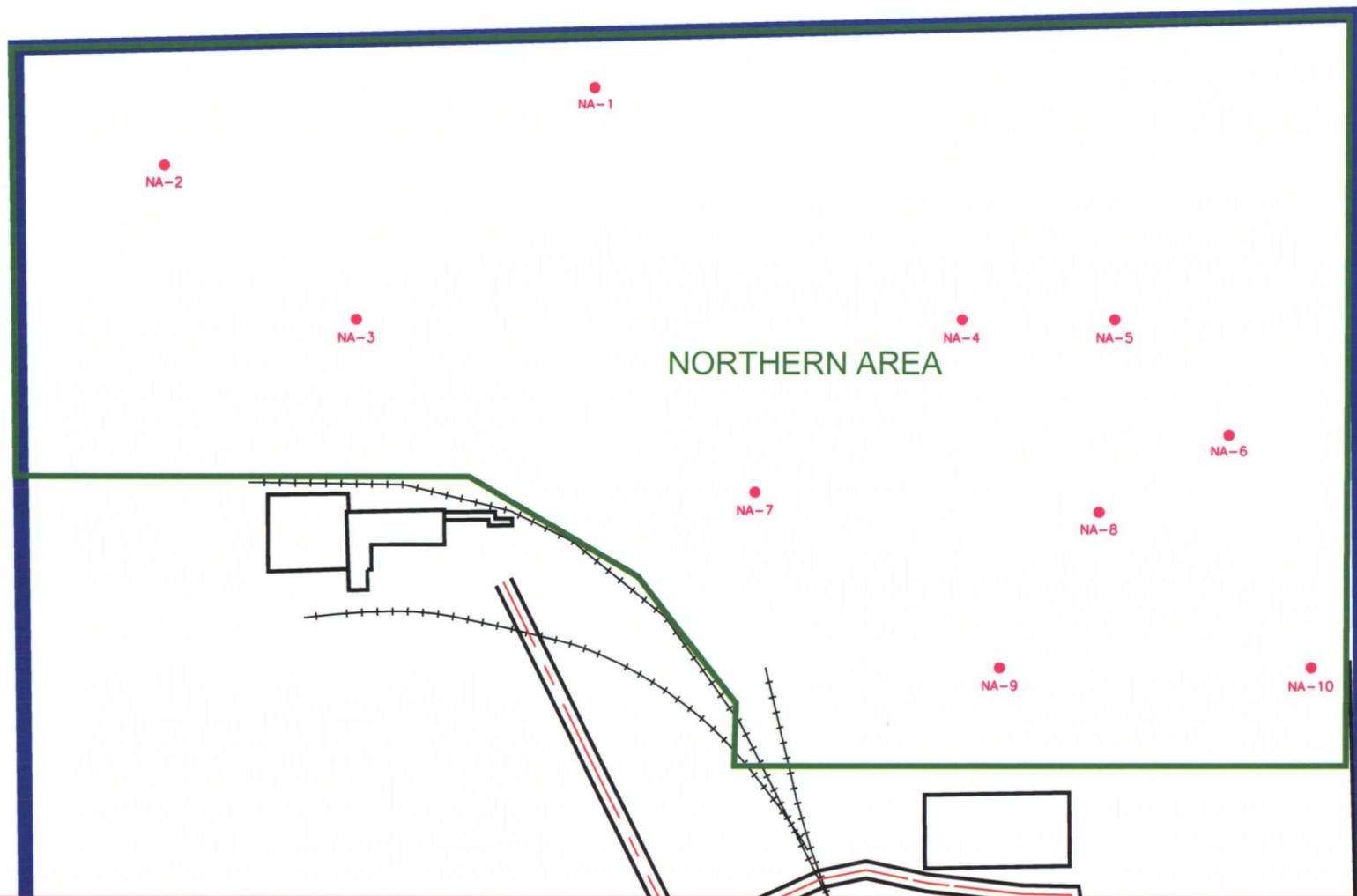
APPROX. SCALE (ft.)
0 160

ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

Proposed Soil Sample Locations
Area 4
Eagle Zinc, Hillsboro, Illinois

Figure
1d



ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

Proposed Soil Sample Locations
Northern Area
Eagle Zinc, Hillsboro, Illinois

Figure
1e

Drafter: APR

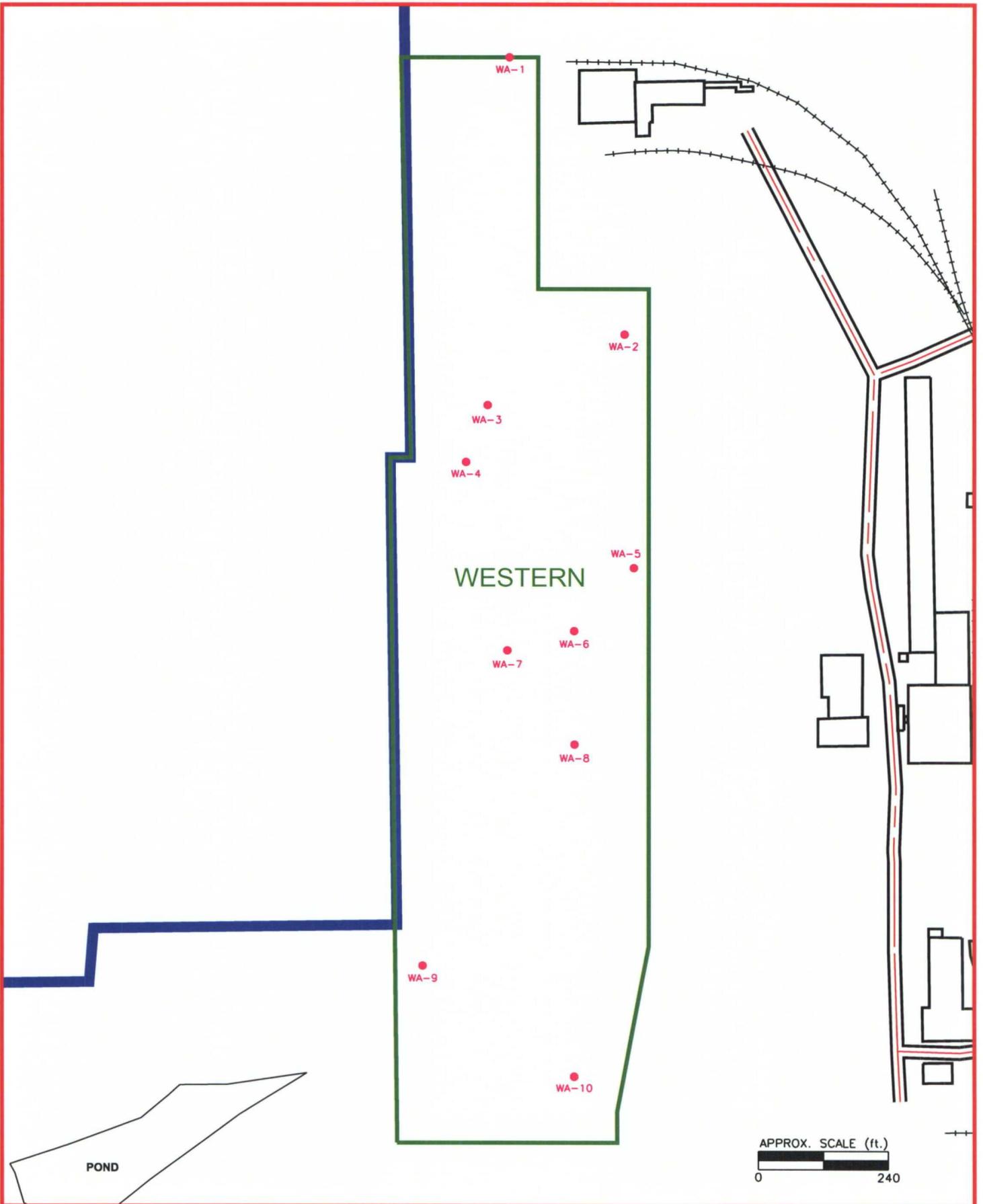
Date: 8/06/02

Contract Number: 21-7400E

Approved:

Revised:

CPF/Eagle Zinc-Hillsboro/Monthly Progress Report (RIFS)/July 2002 Progress Report/Figure 1 Soil Borings



ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

Proposed Soil Sample Locations
Western Area
Eagle Zinc, Hillsboro, Illinois

Figure
1f

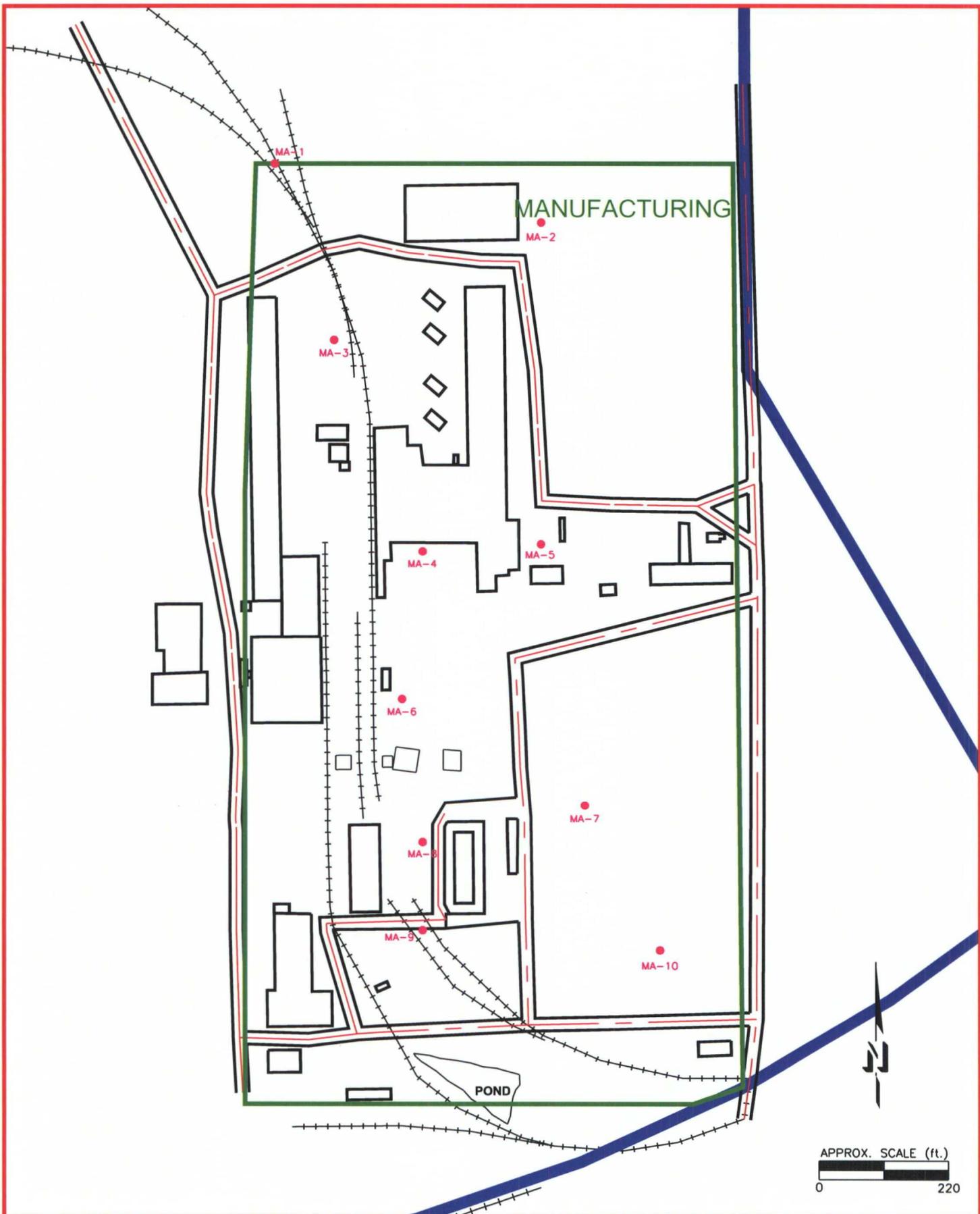
Drafter: APR

Date: 8/06/02

Contract Number: 21-7400E

Approved:

Revised:

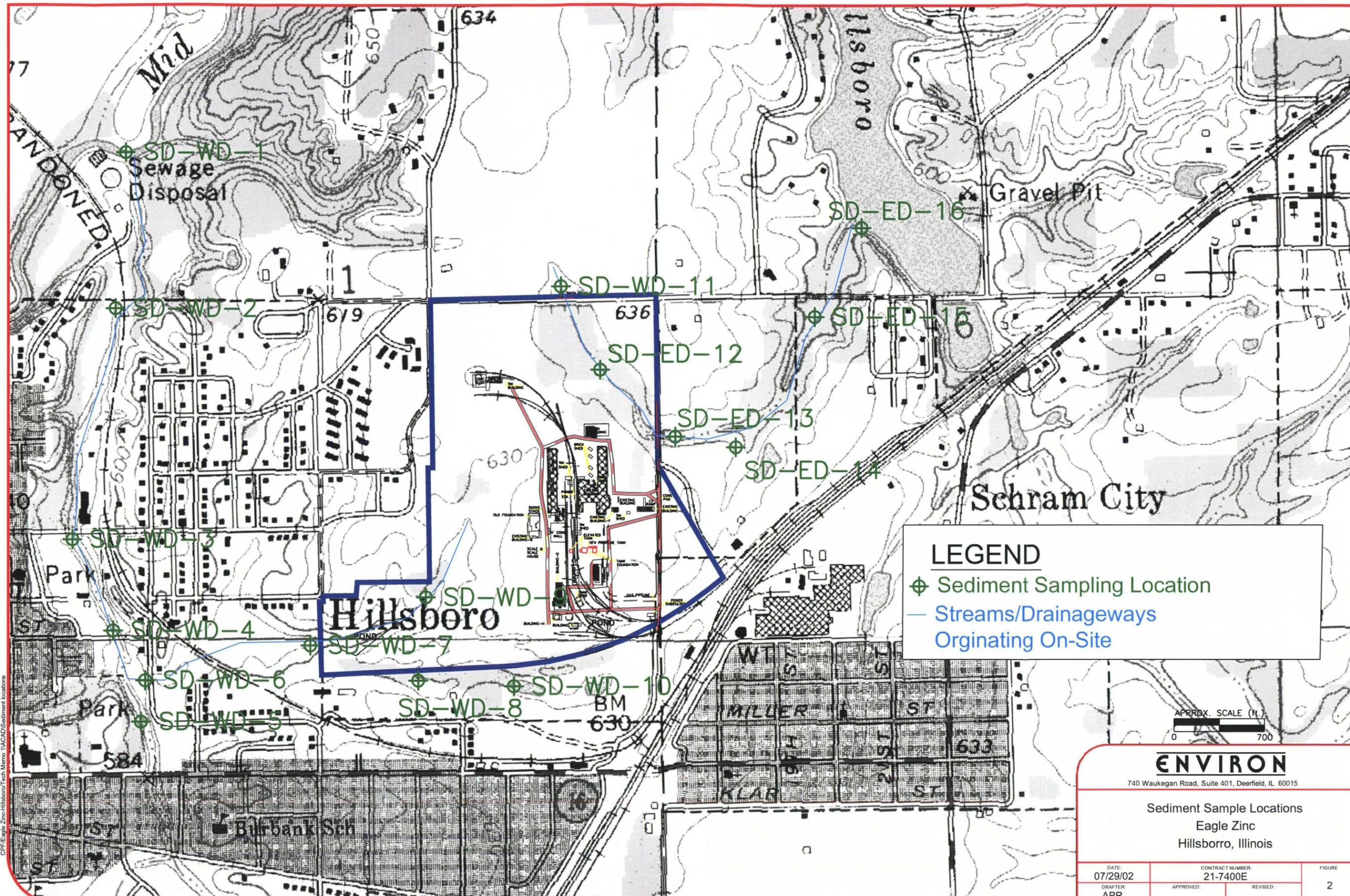


ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

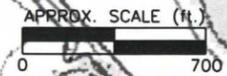
Proposed Soil Sample Locations
Manufacturing Area
Eagle Zinc, Hillsboro, Illinois

Figure
1g



LEGEND

- ⊕ Sediment Sampling Location
- Streams/Drainageways Originating On-Site



ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

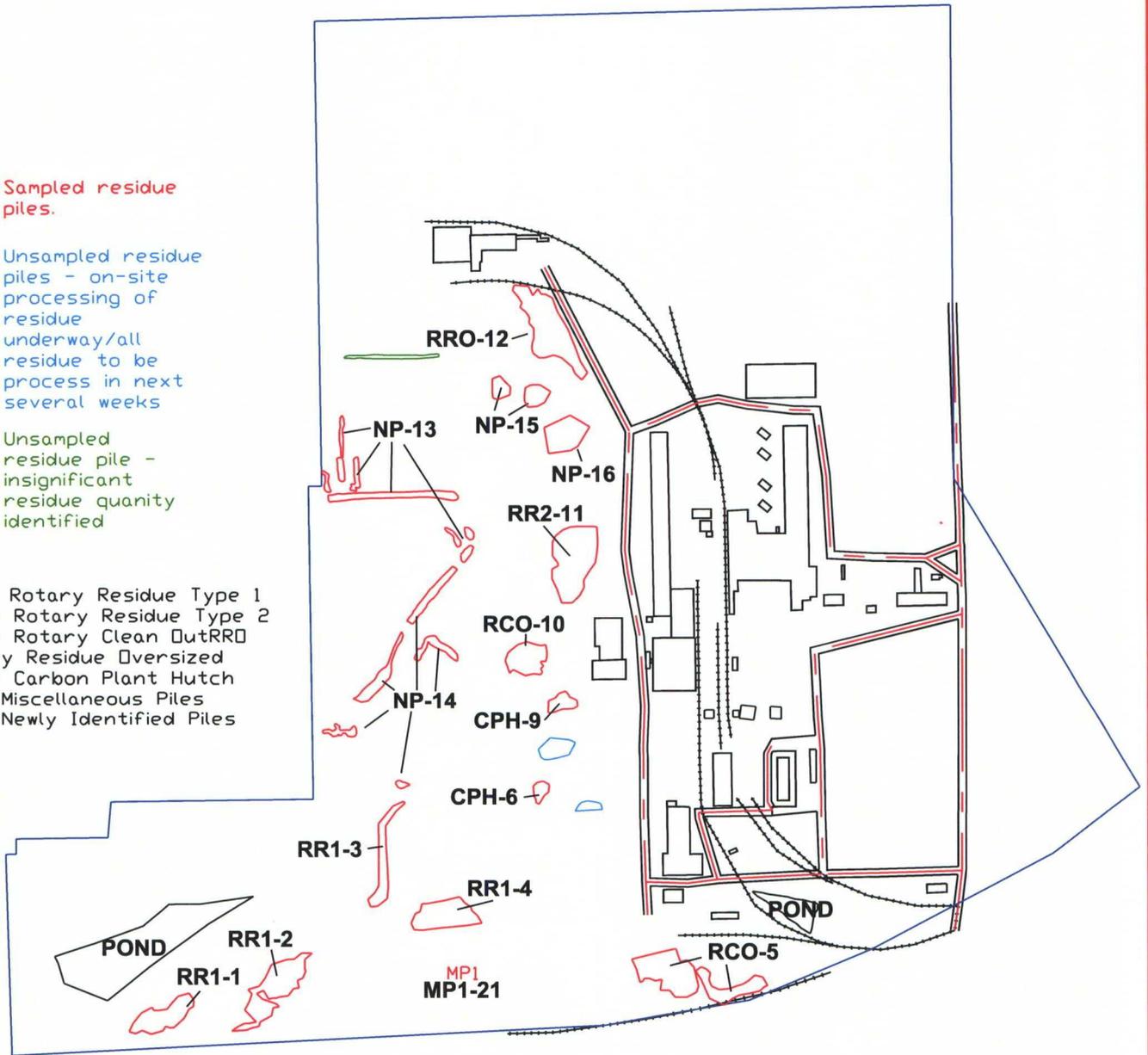
Sediment Sample Locations
Eagle Zinc
Hillsboro, Illinois

DATE: 07/29/02	CONTRACT NUMBER: 21-7400E	FIGURE:
DRAFTER: APR	APPROVED:	REVISED: 2

CPPE/Eagle Zinc-Hillsboro/Tech Memo: T1ACAD/Sediment Locations

- Sampled residue piles.
- Unsampled residue piles - on-site processing of residue underway/all residue to be process in next several weeks
- Unsampled residue pile - insignificant residue quantity identified

RR1 = Rotary Residue Type 1
 RR2 = Rotary Residue Type 2
 RCO = Rotary Clean Out
 RRO = Rotary Residue Oversized
 CPH = Carbon Plant Hutch
 MP = Miscellaneous Piles
 NP = Newly Identified Piles



ENVIRON

740 Waukegan Road, Suite 401, Deerfield, IL 60015

Residue Pile Sample Designations
 Eagle Zinc
 Hillsboro, Illinois

Figure
3

Drafter: CJG

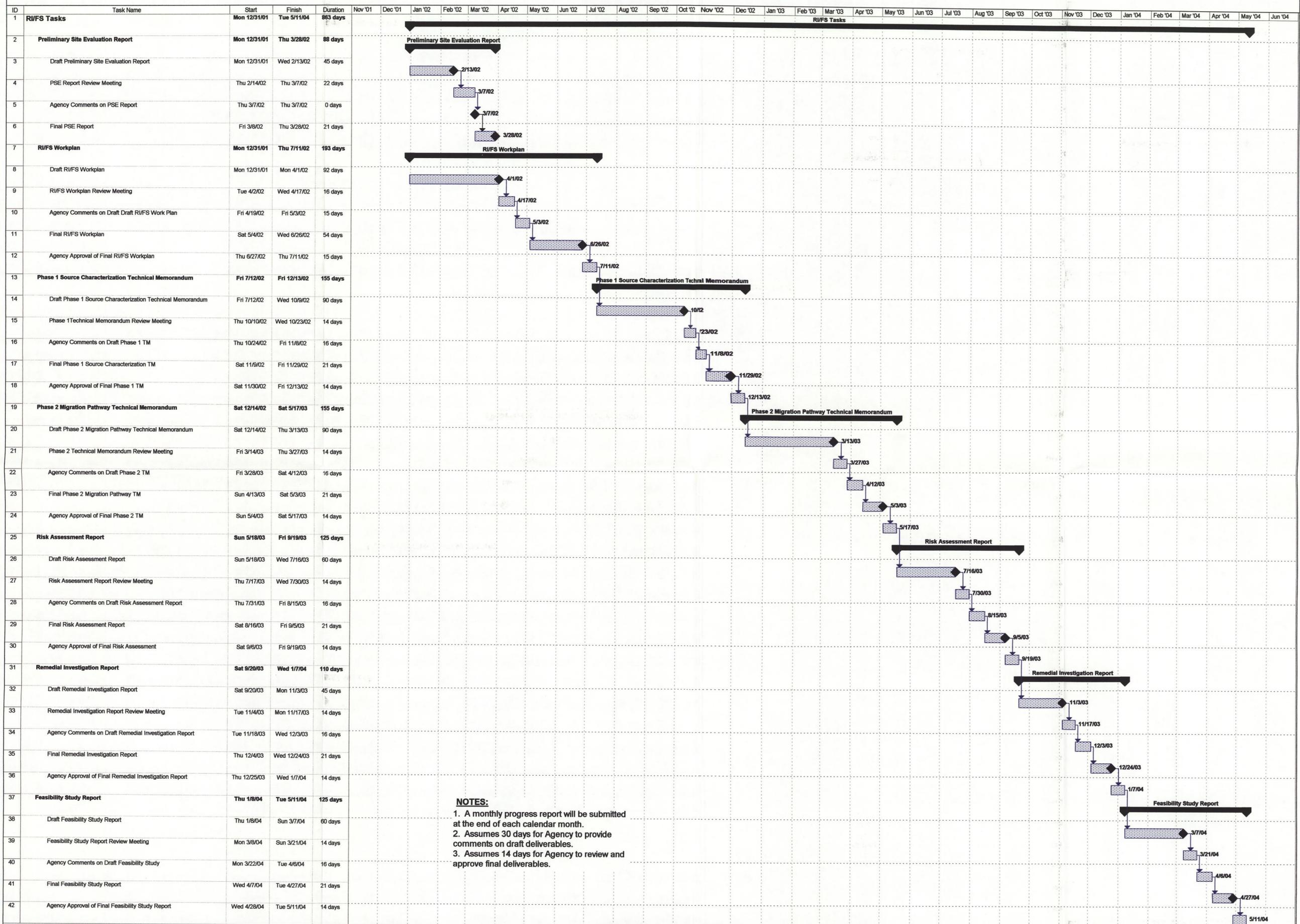
Date: 07/29/02

Contract Number: 21-7400E

Approved:

Revised:

EAGLE ZINC -RI/FS SCHEDULE
EAGLE ZINC COMPANY SITE HILLBORO, IL



NOTES:
 1. A monthly progress report will be submitted at the end of each calendar month.
 2. Assumes 30 days for Agency to provide comments on draft deliverables.
 3. Assumes 14 days for Agency to review and approve final deliverables.